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# KNOWLEDGE-BASED INTEGRATED SUSTAINABLE AGRICULTURE AND NUTRITION (KISAN) PROJECT

QUARTERLY REPORT JULY — SEPTEMBER 2014  
CONTRACT NUMBER AID-367-C-13-00004

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# KISAN PROJECT

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## ACRONYMS

AFSP	Agriculture Food Security Project
AI	Artificial Insemination
ASC	Agriculture Service Center
BDSO	Business Development Services Officer
CBO	Community-Based Organization
CC	Collection Center
CEAPRED	Center for Environmental and Agricultural Policy Research, Extension and Development
CEG	WI's Clean Energy Group
CIP	Climate Intervention Project
COP	KISAN Chief of Party
CSISA	Cereal Systems Initiative for South Asia
CYMMIT	International Maize and Wheat Improvement Center
DADC	District Agriculture Development Committee
DADO	District Agriculture Development Offices
DC	District Coordinators
DDC	District Development Committee
DEPROSC	Development Project Service Center
DIP	Detailed Implementation Plans
DLS	District Livestock Services
DOA	Department of Agriculture (Nepal)
DSR	Direct Seeded Rice
FINGO	Financial Intermediary Non-Governmental Organization
FM	Frequency Modulation
FTF	Feed the Future
GATE	Global Agri-Tech Nepal
GIS	Geographic Information System
GON	Government of Nepal

GUC	Grants under Contract
HMRP	Hill Maize Research Program
HVAP	High Value Agriculture Project
ICCA	Initiative for Climate Change Adaptation
ICT	Information and Communication Technology
INGO	International non-governmental Organization
IPM	Integrated Pest Management
IPM-IL	Integrated Pest Management – Innovation Laboratory
IPNS	Integrated Plant Nutrition System
IT	Irrigation Technician
KISAN	Knowledge-based Integrated Sustainable Agriculture and Nutrition Project
LDO	Local Development Officer
LOP	Life of Project
LSP	Local Service Provider
MFDB	Micro Finance Development Bank
MFI	Micro Finance Institution
MIT	Micro Irrigation Technology
MOAD	Ministry of Agriculture Development
MOHP	Ministry of Health and Population
MOU	Memorandum of Understanding
MPC	Market Planning Committees
MSFP	Multi Stakeholder Forestry Program
MSNP	Multi-sector Nutrition Plan
MT	Metric Ton
MUS	Multiple Use of Water Systems
NARC	Nepal Agriculture Research Council
NGO	Non-Governmental Organization
NPAC	National Project Advisory Committee

NPC	National Planning Commission
NNFSS	National Nutrition and Food Security Secretariat
OCAT	Organizational Capacity Assessment Tool
PACT	Project for Agriculture Commercialization and Trade
PCV	Peace Corps Volunteer
PERSUAP	Pesticide Evaluation Report and Safe Use Action Plan
PO	Program Officer
PPP	Public Private Partnership
RFA	Request for Application
RISMFP	Raising Income of Smallholder Farmers Project
SACCO	Saving and Credit Co-operative
SQCC	Seed Quality Control Center
SWOT	Strength, Weakness, Opportunity, and Threat
TOT	Training of Trainers
USAID/Nepal	United States Agency for International Development in Nepal
USG	United States Government
VDC	Village Development Committee
WI	Winrock International
WIKISAN	Web Interactive Knowledge-based Integrated Sustainable Agriculture and Nutrition
WUG	Water User Group

## INTRODUCTION

The United States Agency for International Development in Nepal (USAID/Nepal) awarded Winrock International a contract on February 14, 2013 for the Knowledge-based Integrated Sustainable Agriculture and Nutrition (KISAN) Project. This project is a part of the Global Presidential Initiative, Feed the Future (FTF), and is the flagship food security project of USAID/Nepal. The Project's overall goal is to sustainably reduce poverty and hunger in Nepal by achieving inclusive growth in the agriculture sector, increasing the incomes of farm families, and improving nutritional status, especially of women and children. The project is implemented in collaboration with two primary Nepali organizations: Center for Environmental and Agricultural Policy, Research, Extension and Development (CEAPRED) and Development Project Service Center (DEPROSC).

KISAN is working in twenty districts – ten districts in the Bheri and Rapti Zones of the Mid-Western Development Region; six districts in the Mahakali and Seti Zones in the Far-Western Development Region; and four districts in the Lumbini Zone in the Western Development Region. This multifaceted project is increasing agricultural production and incomes. As per the contract (Section C.4.8.8 and F.4), Winrock must submit a quarterly progress report up to 30 days following each quarter. The quarterly report describes the accomplishments as compared to the targets and work plan. The Year Three (Y3), Quarter One report covers the period between July 1 and September 30, 2014.

## QUARTERLY HIGHLIGHTS

Major KISAN activities this past quarter are as follow:

- Leverage efforts have benefitted more than 5,000 farmers (4,543 KISAN beneficiaries and 700 other farmers) in 39 VDCs across 7 districts.
- A total of 16,948 individuals received agriculture-related training, including 168 local service providers. All trained LSPs passed their exam at the completion of their training. Trainings included:
  - 1,590 nursery and crop production management trainings
  - 845 crop production management and marketing trainings
  - 1,059 crop plantation, plant protection, post-harvest, and marketing trainings
  - 3,494 trainings on vegetable production
  - 328 trainings on cereal crops and lentil
- KISAN formed 2,246 farmer groups consisting of 47,166 farmers (73% women). About one quarter of these newly formed groups are registered.
- KISAN oriented 1,351 groups on savings and credit and how to improve access to finance. As a result of trainings and interaction meetings with MFIs, 643 beneficiaries have applied for and received agriculture loans with a total value of NRs 14,651,601.

- KISAN worked with DADOs and seed companies to conduct 18 rice and maize seed production and quality control trainings in 11 districts reaching 359 farmers.
- In collaboration with CSISA, HMRP, IPM-IL, and others, KISAN conducted 191 demonstration events on cultivation with plastic house and drip irrigation; rice, maize, and lentil seed production and vegetable production; and bio-pesticide (jhol-mol) technology.
- KISAN established seven MPCs and collection centers serving more than 700 farmers, and are already collection produce.
- The marketing team assessed 34 collection centers and major markets in 15 districts to review market performance and develop plans for growth and expansion.
- Staff met with 14 cooperatives and MFIs to discuss the possibility and feasibility of extending services to KISAN VDCs. KISAN finalized an agreement with Nepal Grameen Bikas Bank to provide microfinance services in Maharajgunj and Kjarhawa VDCs in Kapilvastu.
- Seed expert Gurbinder Gill conducted a series of meetings with key stakeholders in the seed value chain and provided recommendations on how to improve private seed sector engagement.
- KISAN conducted four agriculture output and input marketing workshops to strengthen market linkages with 111 participants including agrovets, traders, MPC members, LSPs, farmers, and cooperatives.
- Using GIS technology, KISAN used project data to map collection centers and producers to ensure that farmers have access to viable markets.
- KISAN staff participated in seven DADC meetings to coordinate project activities with VDCs and district agriculture offices.
- In response to heavy rainfall that caused major flooding and landslides in August 2014, KISAN initiated flood relief support to affected beneficiary households with input support and technical trainings to help rebuild their homes and livelihoods.

## **I. COLLABORATION AND COORDINATION EFFORTS**

In order to promote sustainability, increase the program’s reach, and avoid duplication, KISAN collaborates with a variety of organizations including the Government of Nepal (GON), international non-government projects, USAID/Feed the Future projects, and other United States Government (USG) projects including Peace Corps, other agriculture initiatives, private sector, cooperatives and groups, and Non-Government Organizations (NGOs), and other donors working in KISAN Districts. Table I presents collaborations that KISAN has initiated this quarter. Details are presented under respective sub-headings.

## **A. GOVERNMENT OF NEPAL**

### **I. NATIONAL PROJECT ADVISORY COMMITTEE MEETING**

KISAN works in close collaboration with the GON at all levels. The project established a National Project Advisory Committee (NPAC) comprised of senior GON personnel from the Ministry of Agricultural Development (MOAD), Ministry of Health and Population (MOHP), Department of Agriculture (DOA), Department of Livestock Services (DLS), Nepal Agriculture Research Council (NARC), and private sector personnel from Agro Enterprise Center (AEC) and Seed Entrepreneurs Association of Nepal (SEAN). This Committee is a forum for the government and key national level stakeholders to understand KISAN's activities and encourage their staff at the regional, district, and sub-district levels to work with KISAN staff.

In addition to regular national level meetings in Kathmandu, this past quarter KISAN organized a field visit for the NPAC members along with a team from USAID to the project districts in the Far-West. The visit provided an opportunity for NPAC members to interact with KISAN field staff and beneficiaries directly. The 12-member monitoring team visited KISAN demonstration sites and interacted with farmers groups and MPC members in Kailali, Kanchanpur, Dadeldhura, and Baitadi from September 2-6.

Following this visit, on September 16 KISAN also conducted the third NPAC meeting under the Chairmanship of Dr. Rajendra Prasad Adhikari, Joint Secretary, Ministry of Agriculture Development (MOAD). Participants discussed the field observations from the monitoring visit to the Far-West and provided recommendations for the project. The NPAC members also presented outgoing COP Bill Collis with a letter of appreciation for his contribution to the project as a team leader and for the food security situation in Nepal as a whole. See Annex I for the complete meeting minutes.

During the meeting, Mr. Birendra Bd. Hamal, Deputy Director General (DDG) presented a field trip report. Primary field observations were:

- Good collaboration and coordination from planning to implementation among DADO, KISAN, VDCs, government organizations, and NGOs stakeholders;
- Resource mobilization through combined efforts to led synergic effect for tangible output;
- Introduction of plastic tray using coco peat for healthy seedlings production is encouraging;
- MPC formation is the cornerstone of agribusiness at the local level; and
- LSP deployment in each VDC and demonstration farm is inspiration to other farmers.

### **2. CENTRAL LEVEL KEY GON MEETINGS**

This quarter, KISAN Senior Management members have continued to participate in several meetings with GON to foster collaboration for activity implementation.

- KISAN staff held an introductory meeting with the newly appointed Vice Chairperson of National Planning Commission, Hon. Dr. Govinda Raj Pokhrel, and Hon. Member Dr. Bharatendu Mishra.
- KISAN COP and Agriculture Expert also visited to the newly appointed Director General, Department of Agriculture, Dr. Yubak Dhwoj GC to introduce him to KISAN.

### **3. DISTRICT AGRICULTURE DEVELOPMENT COMMITTEE MEETINGS**

At the district level, KISAN is working with the District Agriculture Development Committees (DADC) which serve as the district-based coordinating body for agriculture activities. During this quarter, KISAN participated in seven DADC meetings. This level of coordination is fostering opportunities to work with VDCs and district agriculture offices, and is further described in the leveraging section. Field visits are being held with the District Agriculture Development Offices (DADOs), Local Development Officers (LDOs), and, in some cases, Chief District Officers (CDOs).

### **4. REGIONAL LEVEL KEY GON MEETINGS**

Cluster Managers met with the Regional Directorates of Agriculture in each of their respective regions (Far West, Mid-West, and West) to review progress of the third quarter and plan for next year 2070/71. The meetings were an opportunity for KISAN to interact with DADO and other regional staff and present the progress report of KISAN in the respective region. Productive discussions were held with DADOs of KISAN districts for possible coordination between KISAN and DADO for the implementation of project activities.

### **5. COLLABORATING WITH GON'S NEPAL AGRICULTURE FOOD SECURITY PROJECT**

This quarter marks the period that AFSP implementation is rolling out in districts that overlap with KISAN. As and when required, KISAN has held discussions with AFSP regarding activity locations, activities, and staffing.

### **6. OTHERS**

#### ***Department of Agriculture and NARC***

KISAN works closely and collaborates with the Department of Agriculture (DOA) and NARC.

Agriculture Expert Dr. Mainali has been working closely with the representatives of NARC, and DOA towards the Seed Summit scheduled for early 2015 (see Activity A.1.1.3).

#### ***Multi-Sector Nutrition Plan***

KISAN is committed to the national food security agenda and, although the project will no longer be implementing nutrition and sanitation interventions, continues to participate in the Multi-sector Capacity Development Working Group/National Nutrition and Food Security Secretariat (NNFSS) hosted at the National Planning Commission (NPC). In this respect, KISAN has shared with the groups detailed

activities in two of the six MSNP pilot districts. This quarter KISAN continues to participate in key discussions, including a workshop entitled Presentation of Major Programs on Nutrition and Food Security in Nepal on September 23, 2014. This NPC and the NNFSS organized event provided a platform to share information and experience among all key stakeholders for nutrition and food security in Nepal.

### ***Participation in annual decentralized governance processes***

KISAN staff has participated in the annual review workshops organized by the DDC in each district. This included participating in integrated planning committees and sectoral planning workshops, as well as some VDC councils for joint planning and coordination purposes. Staff have also submitted the annual workplan for year 3 (GON fiscal year 2071/72) to the DDC, and presented the Year 2 annual project progress report including district activities. These activities are in preparation for the VDC Block Grant process for 2014/2015.

### ***Joint monitoring visit with district-based GON officials***

Joint monitoring visits have been conducted in Pyuthan with the District Agriculture Development Office, District Development Committee (DDC), District Forest Office, and the Federation of Nepalese Chambers of Commerce and Industry (FNCCI). After field observation in Maranthana VDC, line agencies provided feedback and recommended implementing the project in close coordination with government line agency to ensure sustainability and synergetic impact of the project.

### ***District/VDC-level interaction workshop to strengthen LSP linkages with DADO and service center***

Formal interaction workshops were organized in Rolpa, Dang, Gulmi, and Argakhachi with participation of DADO, representative of ASCs, and KISAN LSPs with the objective to develop regular communication between LSPs and DADO for delivering technical services to rural farmers. LSPs have begun visiting DADO and ASCs for information about programs and opportunities to implement in their VDCs/groups. Crop insurance in KISAN farmers' plots and group plots will be coordinated by LSPs, DADO, ASC, and KISAN teams. DADO and ASC will facilitate registration for KISAN groups. These registered groups will be able to receive micro irrigation and other services offered by DADO and ASC. This is further discussed in Outcome 2.

## **B. FEED THE FUTURE PROJECTS IN NEPAL**

KISAN works with other USAID/FTF partners in Nepal to identify best practices and lessons learned to scale up within the KISAN Project. KISAN is working closely with its partner DEPROSC to facilitate FTF KISAN Component C Business Literacy project and will work with the Global Health Initiative (GHI) Suahaara Project. Component C will provide literacy and Suahaara will provide nutrition interventions to KISAN beneficiaries in common working areas. The two FTF projects supporting KISAN are Cereal Systems Initiative for South Asia (CSISA) and the Integrated Pest Management-Innovation Laboratory

(IPM-IL). KISAN is also coordinating with the Hill Maize Research Project (HMRP), and will seek support from the Livestock-IL once KISAN's livestock activities are underway. KISAN is also aligned with USG's Peace Corps Program, as well as USAID's Farmer-to-Farmer (F2F) project.

### ***FTF KISAN Component C Business Literacy***

In the latter part of Y2, USAID awarded the FTF Component C USAID's Business Literacy Project in Nepal to DEPROSC. Through this award, DEPROSC will address FTF Outcome 9 "Increased resilience of vulnerable communities and households through skills development." The program integrates vulnerable groups through literacy, nutrition, life skills, disaster risk reduction (DRR) training, and entrepreneurship action-oriented education enabling women, youth, disadvantaged castes, and ethnic minorities to access agricultural and nutrition interventions. All 48,000 Component C beneficiaries will be selected from KISAN groups. This quarter the project has begun activities at the district level: identification of Community Trainers; beneficiary selection with KISAN groups; and Training of Trainers for Master Trainers. Training manuals are also being finalized.

### ***Suahaara***

KISAN and Suahaara overlap in Baitadi, Dadeldhura, Doti, and Accham. KISAN and Suahaara held initial meeting and visits in three of the overlapping districts this quarter. Interaction meetings have been held with Agriculture Officers at Suahaara district offices for program sharing, coordination, and implementation. On September 19-24, Ms. Danielle Kneuppel and Mr. Hari Koirala (USAID) visited Baitadi, Kailali, and Kanchanpur district sites. During the field visit, they observed farmers' fields, and had discussions with farmers, MPC members, DADO staffs, and other stakeholders. A primary purpose of this trip was to take a closer look at coordination between KISAN and Suahaara. Ms. Kneuppel suggested some activities such as joint monthly district planning meetings and information sharing; inviting the other project staff/agents/trainers to each other's training events; promoting some of each other's activities, etc. She also said that once this list is developed, she would like to hold a coordination meeting at a more senior level in Kathmandu to discuss the listed items and how to assure the best ways for project coordination.

### ***CSISA***

The KISAN Project continues to work with CSISA to roll out technology and co-locate demonstration plots to show improved varieties. During the last quarter, KISAN participated in CSISA's national coordination committee monitoring visit to Kailali, Banke, and Bardia. These, and other visits conducted in coordination with IPM-IL have been outlined in Outcome 3.

### ***IPM-IL***

KISAN is helping roll out and demonstrate new technologies assessed under the IPM-IL. During the last quarter, KISAN and IPM-IL jointly organized a training on tomato graphing at Khajura. Eight KISAN lead farmers participated. Some conclusions based on prior joint efforts are:

- Demonstration effect should be created at overlapping site of Naubasta-7 where KISAN field staff would also monitor the IPM-IL trial site and relay information regarding the trial site, technologies, etc. in the district/area to create an efficient information channel.
- In coordination with KISAN, Farmers Field Day organized at IPM-IL and KISAN overlapping site at Naubasta in the first week of September.
- On Accounting and Leadership training of IPM-IL, KISAN has distributed accounting stationery so that training participants can begin to keep updated records; the KISAN microfinance component will actively participate in the event.
- Demonstrations for nursery establishment using coco peat and plastic trays will be conducted in joint coordination with IPM-IL and KISAN in B-gaun and Sitapur so KISAN LSPs and technical team can learn about the technology and disseminate the information more efficiently. In the upcoming IPM-IL training, three members from the KISAN technical team would attend and disseminate the information in the field.
- Information regarding the IPM-IL program module and the current activities would be shared with KISAN's district coordinator (DC) and program officer (PO) to improve efficiency in dissemination of IPM-IL activities.
- IPM Technology Orientation in the particular IPM-IL farmer groups (now in the third year) would be scheduled in consultation with the KISAN team so that both programs would register their presence at the particular site.

### **C. PEACE CORPS**

The KISAN Project continues to collaborate with the Peace Corps, participating in interactions at national as well as district levels. KISAN Agriculture Expert participated in the US Peace Corps Volunteer training event on September 18 and briefed the N/201 Group on the food security situation in Nepal and the KISAN Project. Twenty-one Peace Corps Volunteers (PCVs) have been posted in three districts – Surkhet, Dang, and Pyuthan. District Coordinators invite PCVs to monthly meetings and engage them in project events and activities wherever possible. KISAN has involved PCVs in KISAN trainings and agriculture-related tasks including trainings, demonstrations, micro irrigation technology promotions, micro-credit promotion, development of MPC/CC, etc.

### **D. FARMER-TO-FARMER PROGRAM**

KISAN is coordinating closely with USAID's Farmer-to-Farmer (F2F) Program being implemented with Winrock International to engage expertise to support the KISAN Project and objectives where possible. Winrock has fielded a volunteer this quarter that supported KISAN. The volunteer, Vanessa Taylor, looked at the effectiveness of KISAN demonstrations.

### ***Effectiveness of KISAN demonstrations***

Agriculture extension is an integral component for agriculture development in the KISAN Project. For this activity, a number of farmers are selected as lead farmers, and these designated farmers are supported in establishing demonstration plots. This process has been ongoing for the last six months of Y2. Initial indications are that the adoption rate is not uniform in all areas and, although it is early in the project, lower than expected even with the replications of same demonstration techniques in various project locations. Hence, KISAN has fielded graduate student Vanessa Taylor to identify challenges of adoption and necessary improvements to increase efficiency. The assignment involves:

- Impact study of technology adoption;
- Evaluation of adoption rates in different demonstration sites;
- Identifying gaps and challenges for the variation in adoption rates with same replication of demonstration techniques; and
- Identification and recommendations for necessary improvements tool to increase adoption efficiency.

The assignment spanned June 18 to July 25; findings indicate that:

- There is a strong correlation between number of trainings received and willingness to adopt;
- Adoption rates are higher in sites where trainings are participatory and where trainers engage community members during the training process;
- Trainings conducted by KISAN staff generally perceived as more effective technically, but group members tend to be more comfortable with local trainers so the LSP/leader farmer led demonstrations are valued as well; and
- Most outside factors did not affect willingness to adopt. They overcome barriers once group members were convinced of demonstration types, effectiveness and benefit.

## **E. LEVERAGING RESOURCES**

KISAN trains farmers and agro-entrepreneurs on ways to maximize crop production through improved technologies and approaches along the complete agriculture value chain. KISAN links beneficiary communities to locally available opportunities to ensure that KISAN trainings are cost effective, establish an environment for multi-stakeholder coordination, and minimize duplication of donor-funded activities in common working areas. During this quarter, KISAN leveraged funds from local and national GON bodies (DADO, VDC, and DDC), other NGOs, International Non-Government Organizations (INGOs), and the private sector including agrovets and seed companies.

This quarter, KISAN has coordinated with various government and non-government entities in which KISAN has provided technical trainings and collaborative partners have supported the cost of materials.

Project data entry in the WIKISAN system is fully underway; as of this reporting quarter, leverage details are being entered and retrieved from the system alone. Because data entry is ongoing, however, it is possible that not all leveraging activities from the reporting quarter have been entered into the system. Activities from this quarter will be noted in the subsequent report as entries are completed. The revised leverage information now also categorizes collaborative efforts as per committed amounts for funding, and the amount disbursed to date. The current leverage summary as entered into WIKISAN is presented below. Details are presented in Annex I.

As indicated in Table III, more than 5,000 farmers (4,543 KISAN beneficiaries and 700 other farmers) have benefitted from the collaborations in 39 VDCs across 7 districts. The range of activities conducted includes trainings in vegetable production, to design installation of irrigation schemes and multiple use water systems, to demonstration and purchase of agro-equipment.

**Table I. Number of people benefiting from leveraged contributions**

District	VDC	Activity	Contribution	VDC Served	KISAN Beneficiaries	Other Beneficiaries
Baitadi	Dehimandau	Training	Provide vegetable seeds for vegetable production	3	126	0
Baitadi	Kataujpani	Training	Training and material support	1	25	0
Banke	Bageswari	Training	Seed support	1	44	0
Banke	Bankatawa	Training	Modern technology provided to farmers: motor, spray, carrat, electric pole	1	425	150
Banke	Hirminiya	Multipl Use System (MUS)	Agri tools to farmers: motor, spray, pipe	1	105	100
Banke	Naubasta	MUS	Agriculture tools, motor, spray, pesticide tools, etc.	1	54	40
Banke	Naubasta	MUS	Agriculture tools, motor, spray, pesticide tools, etc.	1	54	40
Banke	Radhapur	Training	Seed support	0	0	0
Banke	Sitapur	Training	Seed and spray	1	70	0
Dang	Saidha	Training	Canal and pipe fitting	1	23	10
Dang	Satbariya	Training	Canal and pipe	1	25	10

			fitting			
Doti	Sanagau	Training	Seed distribution for demonstration plot formation	2	567	0
Doti	Sanagau	MUS	Demonstration irrigation MUS and canal	1	72	0
Doti	Sanagau	MPC	Linkage with MFI for income generation	1	253	0
Doti	Sanagau	Plastic House	Off-season vegetable production(tomato)	2	567	0
Kailali	Dhangadhi Municipality	Training	Machine mechanization of DADO office Kailali	3	105	62
Kailali	Baliya	Training	Distribution of Boring	1	16	6
Kailali	Geta	Training	Distribution of Boring	1	12	6
Kailali	Malakheti	Collection Center (CC)	Boring support for irrigation	1	16	6
Kailali	Sreepur	Training	Program support on commercial vegetable production in Shreepur VDC ward 5, 7, and 8	1	7	0
Kailali	Sreepur	Training	Program support on commercial vegetable production at geta 4	1	1	0
Kailali	Sreepur	Training	This seed drill machine is used to improve farming of cereal and other crops	1	16	14
Rolpa	Jhenam	MPC	Collection and sale of vegetables	6	980	128
Rolpa	Jhenam	MPC	Collection and sale of vegetables	6	980	128

Total				39	4,543	700
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## II. ACCOMPLISHMENTS COMPARED TO TARGETS

### A. COMPONENT A, IRI: IMPROVED AGRICULTURAL PRODUCTIVITY

Component A addresses food insecurity in Nepal by increasing rural people’s productivity of rice, lentils, and maize, and will increase smallholder incomes through the promotion of high-value agricultural production linked to markets and functional supply chains. The agriculture component has five outcomes.

#### I. OUTCOME I, SUB-IR 1.1: FARMERS RECEIVED IMPROVED AND INCREASED AGRICULTURAL INPUTS

KISAN is increasing farmers’ access to quality inputs (particularly seeds, water, and credit). For seeds, the project is improving the production of quality seeds and is working with companies to improve their distribution to remote areas. KISAN is focusing on seed production of varieties released and registered by the seed board of Nepal. For water, the project is forming water user groups and helping them access funds to create or reclaim water systems. For credit, the project is strengthening cooperatives and other types of financial services. The following section describes the activities that will contribute KISAN to achieving the results.

##### Seeds

KISAN works to help make quality rice, maize, and lentil seed available to farmers by training farmers on how to grow quality seed, increasing contracts between seed farmers and seed companies, and building the capacity of seed companies to expand their production and distribution to KISAN districts and VDCs.

##### **Activity A.1.1 Increased the quantity and improved the quality of seed inputs**

The focus of Y3 is to help the existing seed companies and cooperatives to expand their production of maize, lentil, and rice seed with farmers in KISAN districts. Data that shows increased access to seed and increased seed production are presented annually.

**Activity A.1.1.1 Conducted maize-focused workshop to explore private sector’s interest in promoting and training farmers on high yielding seeds and maize production.** KISAN did not facilitate this workshop this past quarter. We will confirm the need and plan to conduct it next quarter.

**Activity A.1.1.2 Strengthened seed companies.** KISAN seeks to work with interested seed producing groups and agribusinesses to develop strategic business plans as a way to expand their business in the seed sector. In this regard, KISAN has fielded seed expert Gurbinder Gill to work with the KISAN team to meet with key stakeholders across the seed system value chain and suggest how KISAN can further strengthen their engagement with the private sector seed establishments over the next two years. In his draft report, Mr. Gill suggests to:

- Create an enabling environment for growth of the private seed sector enterprise through:
  - Strengthening the existing industry association
  - Creating a Seed Industry Council
  - Mechanism to highlight the industry needs with the Government
- Establish increased private and public sector collaboration by working with the private seed enterprises across categories (small/medium/large) in the project area to:
  - Build capacity to increase the business
  - Grow beyond the current level of business state
  - Identify key areas of constraints and support (through grants) for enabling business' to grow

Together with the project team, Mr. Gill met major stakeholders and began preliminary discussions on possible ways forward. Mr. Gill also supported the Seed Summit planning (see Activity A.1.1.3). He helped the technical committee define the objectives and develop the framework for four thematic areas that will frame the Summit. As per his End of Assignment report, he has recommended separate approaches for seed companies, as well as large and medium grain companies. A brief trip report is found in Annex IV.

**Activity A.1.1.3 Worked with CSISA to plan and host Seed Summit.** KISAN is working closely with CSISA and the GON to plan a Seed Summit that will support the GON's Seed Vision 2025 and increase the production of seed in Nepal. Agriculture Expert Dr. Mainali and COP Bill Collis attended several pre-planning meetings during the quarter. After several meetings, the key stakeholders decided that the MOAD will lead in organizing the seed summit, with the support from KISAN and CSISA projects, USAID, and other donors. The Summit was postponed until mid-March 2015. Dr. Rajendra Adhikari, Joint Secretary, and Foreign Aid Coordination Division will coordinate and facilitate for the summit from MOAD. Management and Technical Committees will be led by Chief, SQCC and Director, Crop Development, DOA respectively. Four thematic areas for technical papers will be developed as a way to frame key issues of the Summit. The four areas are: i) seed policy environment; ii) support services in seed production; iii) seed quality and marketing; and iv) seed enterprise development.

In support of the Summit, KISAN developed several TORs. KISAN developed a TOR for Dr. Hari Krishna Upadhyaya, Seed Sector Consultant, who will be contracted by CIMMYT. Dr. Upadhyaya will help organize the seed summit. He will prepare a concept and outline of the Summit. KISAN also drafted a TOR for a Seed Summit Associate Facilitator, which Winrock will engage.

**Activity A.1.1.4 Increased quality seed production.** KISAN is continuing to provide training to farmers raising seed. During the last three months, KISAN staff have visited seed farmers and provided

guidance on watering and fertilization. As the plants grow and mature, KISAN coordinated with SQCC and DADOs to conduct seed production inspections for rouging poor genetic materials from rice and maize fields.

**Trainings.** During this quarter, KISAN worked with DADOs and seed companies to conduct 18 rice and maize seed production and quality control trainings in 11 districts. A total of 359 farmers participated in the trainings. During the training, farmers learned about the different aspects of quality seed production and practical skills including how to remove off types (rouging) and volunteer plants (plants grown with seed from the previous season that need to be removed otherwise they deteriorate physically and affect the genetic quality of the seeds) in seed production fields. KISAN observed that farmers are regularly monitoring their seed crops and removing off types in the field. Seed production group members are directly linked with seed companies and cooperatives for seed marketing after trainings.

**Inspections.** For rice seed, 288 seed farmers have 106 ha under rice seed production (see Table II) in Banke, Bardiya, Kailali, Kanchanpur, and Kapilvastu Districts. The seed inspector from SQCC (Kanchanpur) and District DADOs conducted seed crop inspections in 19 ha area selected randomly in the Kanchanpur and Dang Districts. Quality control checks of the remaining seed crop were informally carried out by the KISAN staff. Rouging for rice was performed during the panicle initiation stage.

**Table II. Rice seed production summary**

Source of source seed	District	Farmers participated	Variety	Production area (ha)	Source seed (kg)	Estimated seed production (Mt)
Cooperatives, GATE Nepal, NARC,DADO & Seed Company	Banke, Bardiya, Kailali, Kanchanpur, Kapilvastu	288	Radha-4,saba mansuli, sabitri, Ramdhan, Swarna sub-1,Sukha-3 & Hardinath-1	106	5,020	349.97
<b>Total</b>		<b>288</b>		<b>106</b>	<b>5,020</b>	<b>350</b>

For maize seed, 879 farmers have 132 ha planted for seed production in 13 project districts, and KISAN inspected 15.28 ha area. Maize seed production area was inspected randomly in Jajarkot and Surkhet districts by an authorized seed inspector from DADO/SQCC and the remaining area was informally inspected by the KISAN staff. Rouging for maize was conducted during the tasseling stage. KISAN continues to be in close coordination with regional seed testing laboratories for seed crop inspection and testing, and staff provide technical support in rice and maize seed production for farmers regularly.

SQCC is the official seed certifying agency and conducts crop inspections as per the public and private sector demand. But due to insufficient staff, SQCC is unable to provide this seed certification service to all seed growers/companies. Therefore, most of the seed companies prefer to use the truthful label system where the seed companies are responsible for the quality of seed that they produce.

## **Water**

### **Activity A.1.2 Increased water supply for farmers**

KISAN is working with households and communities to increase their access to water. As part of the reprogrammed funding, KISAN is giving more emphasis to encouraging manufacturers, dealers, and agrovets to play a role in educating farmers so that they can increase their sales.

**Activity A.1.2.1 Support farmers to establish irrigation schemes.** During this quarter, KISAN started installing irrigation schemes in the field. However, progress has been slow since it was the rainy season and many farmers were busy in their fields. One plastic tank in Palpa and one water harvest masonry tank in Rukum are currently under construction. KISAN conducted a training for farmer groups (23 participants) on micro irrigation at the demonstration site in Rukum where a water collection and distribution pond is under construction with funding from the Rukumeli Society Development Center (through local cost share). Participants learned how the micro irrigation system operates and how the water is distributed in the community; they also learned how the system is built and the required maintenance to ensure sustainability.



*Figure 1. Farmers in Rukum learned about the potential benefits of micro irrigation could have for their community and how to operate and properly maintain this system.*

Winrock's Clean Energy Group (CEG) in Nepal has been awarded an LWA Solar Pumping project that is to facilitate solar pumping for irrigation in KISAN areas.

Following intensive discussions over previous quarters, CEG has conducted two follow up orientations and demonstrations of the solar pumping systems in Dharampaniya, Pakadi, and Tilaurakot VDCs in Kapilvastu in coordination with KISAN field staff. Farmers indicate interest in installing the system, but feel some level of subsidy is required as the initial installation costs are high. A pump is planned to be installed at a KISAN farmer's land in Banke in the following quarter.

**Activity A.1.2.2 Strengthened value chains of irrigation, water storage products.** Project staff visited micro irrigation technology (MIT) dealers in major market centers in the KISAN districts, and established linkages with them by orienting dealers to vendor-based lending opportunities, introducing them to local suppliers, and creating demand in communities for these products. Project staff are also

consulting with farmers in order to ensure that vendors stock the appropriate (in-demand, meets farmers' needs) irrigation technologies.

In Pyuthan, KISAN conducted one workshop targeting the micro irrigation value chain to strengthen linkages between MIT dealers and change agents and agrovets. During the workshop, participants discussed supply and demand of quality and timely inputs that are necessary for each of their respective businesses. As a result of the workshops, participants were more aware of the major constraints at the input and output levels for the value chain actors, and they had the chance to provide potential solutions that would benefit all parties involved.

KISAN staff are coordinating with DFID's Community Irrigation Project (CIP) and LIDO (Lumbini Integrated Development Organization), KIDS for joint activities in irrigation in a number of project locations.

#### **Activity A.1.2.3 Facilitated rehabilitation or development of community water systems.**

KISAN staff continue with the selection and feasibility study for the irrigation schemes. During this quarter, Irrigation Technicians met with 125 farmer groups to conduct a feasibility studies for irrigation schemes. KISAN leveraged NRs 1,575,000 for canal rehabilitation, farm management, and micro-irrigation in Bhajhani VDC of Kailali district from the Kailali DADO and NRs 11,000 from farmer group for the construction of a plastic pond in Palpa.

Irrigation surveys were carried out in three farmer groups (Rimi, Gwadi, Harmichaur) in Gulmi and determined that there is potential for two systems. Possibilities for matching funds were discussed with VDCs and various groups. The group in Gwadi VDC has decided to begin plastic pond construction.

#### **Credit**

As of September 2014, KISAN has reached and assessed beneficiaries' access to finance in 3007 groups. Around 85% of the 47,484 beneficiary farmers have access to some form of financial services. These are primarily with savings and credit groups, Savings and Credit Cooperatives (SACCOS), but some also have linkages to with Financial Intermediary Non-Government Organizations (FINGOs) and Micro Finance Development Banks (MFDBs).

#### **Activity A.1.3 Increased credit availability in KISAN districts**

One limiting factor that farmers face is access to credit. Many smallholder farmers lack fixed asset collateral (land). And even if farmers have collateral, they cannot meet all of the requirements for collateral lending. While microfinance institutions are plentiful in Nepal, particularly in more accessible areas, many are reluctant to extend their services to more remote areas given the high cost of doing business and the low number of potential clients. During Y3, DEPROSC continues to work with MFIs to provide loans to KISAN beneficiaries, and works with farmers to train them on how to access credit. In addition, KISAN is promoting vendor-based financing so farmers can buy agricultural machinery.

**Activity A.1.3.1 Helped MFIs extend to KISAN districts.** KISAN has conducted a range of activities this quarter to support MFI extension into project districts. And KISAN is pushing MFIs to more remote parts where KISAN is working and beneficiaries have less access to credit. These have included conducting interaction events with MFIs and other financial intermediaries in preparation for future trainings and workshop events, and preparing solicitations for grants software support to selected financial intermediaries to help create an environment for transition to electronic transactions.

**Activity A.1.3.1.a Trained MFIs.** During this quarter, KISAN staff met with 14 cooperatives/MFIs to follow up on business plan preparation as well as financial service extension and agriculture loan disbursement in KISAN VDCs. The main objective of these meetings was to determine project areas where the cooperative/MFIs are currently present, learn about the different products that MFIs offer, and the possibilities of expanding their financial services in KISAN VDCs.

Most of the MFIs participating in these meetings are expanding their services to KISAN VDCs. However, MFIs requested that beneficiaries submit business plans while applying for a loan. Some MFIs have introduced new schemes to motivate and attract beneficiaries to establish new businesses. For example, Chhimek Bikas Bank has introduced a group-based loan scheme with 14% interest for up to a certain loan volume. Similarly, Mega Bank has branchless banking services in seven locations in Arghakhachi and is also ready to provide wholesale lending on collateral for cooperatives at 7-9% interest rate.

KISAN has a written agreement with the Nepal Grameen Bikas Bank Maharajgunj branch for MF service extension in Maharajgunj and Kajarhawa VDCs in Kapilvastu. In these VDCs, Nepal Grameen Bikas Bank is the only one bank where beneficiaries can access finance. There are no active cooperatives in these communities. See Table V for a list of district interaction meetings with MFIs. Trainings will occur in future quarters.

**Table III. Interaction meetings with MFIs by district**

District	Number of events conducted	Number of MFIs participated in the interaction
Bardiya	1	5
Surkhet	1	7
Jajarkot	1	7
Pyuthan	1	2
Rolpa	1	2 MFIs+1 vendor
Salyan	2	6
Gulmi	1	5
Kapilvastu	1	4 MFIs + 4 branches of Nepal Grameen Bikas Bank
Arghakhachi	1	9
Baitadi	1	8

Achham	I	7
Doti	I	8
Dadeldhura	I	4 MFIs+4 vendors

**Activity A.1.3.1.b Solicited grants for computers and software for MFIs (SACCOs, MFDBs, FINGOs), extending**

**to KISAN VDCs.** During the past quarter, KISAN staff prepared the RFA for this grant. The RFA will be released next quarter.

**Activity A.1.3.1.c Organized credit workshop for microfinance banks, FINGOs and contributing savings and credit cooperatives.** This was not done during the first quarter; workshops are planned for next quarter.

**Activity A.1.3.1.d Linked banks and wholesale financiers with potential agribusiness vendors and local MFIs.** This will be done next quarter.

**Activity A.1.3.2 Facilitated vendor-based loans.** During the reporting period, agrovets and trading companies provided some vendor-based credits/loans to KISAN beneficiaries. Eight beneficiaries from Kapilvastu, Kailali, Argakhanchi, and Surkhet received financing through the local vendors at a total value of NRs 230,750.

Staff met with vendors in project districts to introduce KISAN, and share information on credit trends of farmers. KISAN staff has noted that farmers in various VDCs contact vendors (agrovets) on a regular basis to purchase inputs. During the visit, vendors were orientated on how to maintain systematic records of credit transactions as well as cash flows.

S. K. Suppliers Taulihawa and International Agro-Seed Company Taulihawa are conducting business on a large scale in KISAN districts. S. K. Supplier sells agro-equipment like tractors and irrigation tools. International Seed Company Taulihawa sells improved cereal crops seeds. A seed producer group from Dharmpaniya VDC has a contract with this company to produce seed in return for the company providing foundation seed on credit to the producers. See Table VI for additional details of vendor-based loans.

**Table IV. Vendor-based loans in QIY3**

District	Name of Member	Name of Group	Name of Vendor	Credit amount	Credit purpose
Arghakhachi	Shanta Sunar	Deurali Dalit Mahila Krishak samuha	Panthi Agro vet, Sandhikhark	700	Cauliflower and cabbage seed
Arghakhachi	Debkala B.K.	Deurali Dalit Mahila Krishak samuha	Panthi Agro vet, Sandhikhark	800	Seed purchase

Kapilvastu	Anhi Jhalwa	Jaya Ambe Krishak Samuha	Maurya Agro vet	15,000	Seed, fertilizer, pesticide
Kapilvastu	Ram Charan	Taja Tarkari Utpadan samuha	Maurya Agro vet	1,370	Vegetable seed, fertilizer
Kapilvastu	Radha khalan/Bhojraj khalan	Makhamali Krishak Samuha	Maurya Agrovet	880	Vegetable seed, fertilizer
Kailali	Chatura Kathariya	Ghusari Farmer Group	Tulsi Trading	190,000	Tractor
Surkhet	Mansari gautam	prayrana mahila kiri samuha	samir agrovet	12,000	Plastic tunnel, vitamins
Surkhet	Pabitra dhakal	dhamche tarkari utpadan samuha	new paudyal agrovet	10,000	Seeds, plastic tunnel
<b>Total</b>				<b>230,750</b>	

**Activity A.1.3.3 Trained farmers and farmer groups on how to access credit.** KISAN district-based credit staff are working with the farmers groups to increase their knowledge of credit and how to access it. This quarter, KISAN oriented 1,351 groups on the importance and basic concepts of savings and credit; staff also introduced approaches to improving access to finance. The orientation supported groups in effectively managing saving and credit activities in KISAN districts. To date, KISAN has trained a total of 3,007 groups.

During this quarter, 643 KISAN beneficiaries have received agriculture loans for a total value of NRs 14,651,601 from MFIs and savings and credit groups. Most of the loans were used to buy agriculture inputs like seed and fertilizer; several beneficiaries have also used loans for constructing plastic houses and tunnels for off-season vegetable production. One person from Kailali has taken loan NRs 190,000 to buy two-wheel tractors (see A.1.3.2 above). The interest rates on the loans vary from 16% to 24 % depending upon the micro finance institution, loan period, and volume. Dang farmers borrowed the most money. The highest numbers of loans are being accessed through cooperatives, but beneficiaries are able to get the larger loans from MFDBs like Nirdhan Development Bank. See Table VII for further details on loans.

**Table V. Total loans to beneficiaries by district**

District	Total	
	Loan amount	# of beneficiaries
Kapilvastu	628,000	25
Gulmi	1,426,037	85
Palpa	1,283,500	75



Figure 2. Farmer groups in Rukum participating in an orientation on savings and credit where they learned how to improve their access and how it could benefit their livelihoods.

Arghakhachi	1,468,961	57
Dang	2,935,690	102
Salyan	1,645,500	48
Pyuthan	365,000	10
Banke	222,580	29
Bardiya	802,133	21
Surkhet	505,000	14
Kailali	2,338,200	107
Achham	589,000	28
Kanchanpur	63,000	11
Dadeldhura	165,000	10
Doti	98,000	13
Baitadi	116,000	8
<b>Total</b>	<b>1,4651,601</b>	<b>643</b>

**Activity A.1.3.4 Explored mobile money opportunities.** This is scheduled for Q2.

**Activity A.1.3.5 Trained cooperatives and link with KISAN farmers.** As reported in the Y2 Annual Report, KISAN developed a curricula/manual and trained 42 cooperatives last year in business plan preparation. Following those trainings, KISAN has regularly linked farmers with cooperatives. In this quarter, training in Market Information System is in demand, which will be addressed in the RFA for

software support. Afterwards, KISAN will conduct other needs-based training for them. KISAN is in the process of developing saving and credit policies/products for cooperatives.

### **Other Input Supply Activities**

**Activity A.1.4 Strengthened value chains of a range of inputs that will include plastic houses and IPM products.**

This will be done next quarter.

**Activity A.1.5 Strengthened the value chain by establishing stronger linkages between LSPs, lead farmers, agrovets, seed traders, veterinarian wholesales, traders, wholesale markets, micro-irrigation technologies (MIT) dealers, cooperatives, GONIDADO, MFI etc.**

KISAN is strengthening linkages between buyers and suppliers to increase a better understanding between the farmers and traders. Farmers and input suppliers need to understand the varieties and quality inputs required to produce high-value products for the market and the market needs to understand the possible production volume of market needs/demand and the market needs to understand production potential.

This quarter, KISAN conducted four Agriculture Output and Input Marketing workshops in Pyuthan, Rolpa, Kailali, and Kanchanpur to strengthen market linkages. These workshops had a total of 111 participants representing various stakeholders including agrovets, traders, MPC members, local service providers, agriculture office staff, farmers, and cooperatives.

The main objective of these workshops was to identify existing problems and issues for marketing of major high-value crops in the KISAN project area. The workshops help assess demand and supply of

major vegetables and identify the opportunities to increase local production and exports to nearby markets. They also help establish the role of stakeholders in managing district agriculture products.

DADOs have played a positive role and instructed to their staff based at the Agriculture Service Centers to build linkages with KISAN field staff to coordinate and collaborate; the workshops helped to facilitate these relationships at the field level.

**Activity A.1.6 Supported Agricare, bio pesticide supplier to extend networks and reach into KISAN areas.**

During this quarter a RFA was developed for agrovets to apply for funding to extend train farmers and establish demonstrations to promote new technologies that they sell. The RFA will be posted and grants will be awarded during Q2.

**2. OUTCOME 2, SUB-IR 1.2: IMPROVED CAPACITY OF AGRICULTURE EXTENSION WORKERS, SERVICE PROVIDERS, AND FARMERS**

Under Outcome 2, KISAN will directly train farmers to improve agriculture production and will train Change Agents who will support and provide technical training and services to farmers. Change Agents includes GON extension agents, local service providers/lead farmers, agrovets, local companies, and commercial agribusinesses that in turn will train and/or provide services to KISAN direct and indirect beneficiary households.

Table VIII shows the number of agriculture extension workers, service providers, and farmers trained this quarter as compared to the Y3 targets and life of project (LOP) targets. This quarter, KISAN trained 16,948 individuals in short-term agricultural sector productivity or food security training and a total of 168 local service providers (LSPs). All trained LSPs in this quarter successfully completed exams at end of training. These trained LSPs will support Outcomes 1, 2, 3, 4, and 5.

**Table VI. Outcome 2: Improved capacity of agriculture extension workers, service providers and farmers**

<b>Performance Indicator</b>	<b>Target Y3</b>	<b>Achievement Y3</b>	<b>Achievement (Y3Q1)</b>	<b>Target LOP</b>	<b>Achievement To Date</b>
Number of individuals who have received USG supported short-term agricultural sector productivity or food security training.	49,700	16,948	16,948	136,000	49,924
Number of agriculture extension workers, service providers and farmers who	600	168	168	960	439

successfully complete exam at end of training.					
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### **Activity A.2.1 Trained Change Agents**

KISAN builds the capacity of farmers and Change Agents in targeted communities through a variety of trainings, by developing demonstration plots, through workshops, and by hosting exposure visits to other farmers or demonstrations.

**Activity A.2.1.1 Developed curriculum and materials for Change Agents.** Staff finalized the technical curricula for LSPs and designed TOTs. The trainings will build change agent capacities in various technical activities and orient them to other related issues such as business planning and management, gender sensitivity, environmental impact, how to train others, and communications skills.

**Activity A.2.1.2 Identified Change Agents and conducted training sessions.** The KISAN team is working to identify individuals who can serve as potential change agents in the KISAN production areas. In Y3Q1, 168 LSPs have been identified and trained. All trained LSPs have successfully completed an exam at the end of the training. They were also oriented on group savings and credit and vendor-based financing. Table IX shows the LSPs trained who successfully completed exam at the end of the training during the quarter and to date.

**Table VII. Number of agriculture extension workers, service providers, and farmers who successfully complete exam at end of training**

<b>District</b>	<b>Number of farmers trained (Y3Q1)</b>	<b>Male</b>	<b>Female</b>	<b>Total farmers trained cumulative</b>	<b>Male</b>	<b>Female</b>
Achham	0	0	0	10	4	6
Arghakhanchi	8	7	1	13	9	4
Baitadi	0	0	0	10	6	4
Banke	5	3	2	31	20	11
Bardiya	18	7	11	47	17	30
Dadeldhura	0	0	0	9	4	5
Dailekh	12	7	5	27	18	9
Dang	26	16	10	53	35	18
Doti	0	0	0	7	5	2
Gulmi	9	4	5	14	6	8
Jajarkot	9	7	0	19	14	5
Kailali	0	0	0	21	13	8
Kanchanpur	0	0	0	21	12	9

Kapilbastu	16	16	0	28	27	1
Palpa	9	8	1	14	11	3
Pyuthan	11	9	2	24	16	8
Rolpa	13	7	6	23	15	8
Rukum	8	4	4	18	7	11
Salyan	12	6	6	25	13	12
Surkhet	12	10	2	25	17	8
<b>Total</b>	<b>168</b>	<b>111</b>	<b>55</b>	<b>439</b>	<b>269</b>	<b>170</b>

### **District/VDC-level interaction meeting for LSPs to strengthen linkages with DADO and ASC**

A total of six formal interaction workshops were organized between District Agriculture Development Office and KISAN LSPs in the West (Gulmi and Arghakhachi), Mid-West (Dang and Rolpa), and Far-West (Kailali and Kanchanpur) districts. The goal of these workshops was to build relationships for delivery of technical services to rural farmers. LSPs were oriented to several DADO programs/initiatives in extension, horticulture, fisheries, plant protection, and market planning/development. DADOs are using a group approach and specialized programs such as the Youth Self-Employment Program, Fish Program, Maize, Lentil, and Onion Mission Program, and Commercial Banana Farming (depending on the district) to disseminate technologies to rural areas through trainings conducted by model farmers (LSPs/lead farmers could serve in this capacity) in the village and other resource persons. DADO also recently started a crop insurance program. LSPs have started visiting the DADO and ASCs to gather information on available programs and relay this information back to their VDCs/groups. DADO and ASC are facilitating the process of registering KISAN groups so they can receive micro irrigation, crop insurance, and other services.

### **Activity A.2.2 Organize Farmers into Groups and Cooperatives**

In Y3Q1, 2,246 farmers groups consisting of 47,166 (12,735 male and 34,431 female) farmers were formed. Of those farmers, 12%, 62%, and 9% are dalit, janajati/ethnic, and madhesi, respectively. Also, 73% of beneficiaries are female and 26% of beneficiary households (HHs) are female-headed. Table X shows the number of associated farmers in farmer groups formed by districts in this quarter and over LOP.

**Table VIII. Number of farmers groups formed by district**

District	Group formation (Y3Q1)	Male	Female	Total members	Cumulative Group formation	Male	Female	Total members
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**Table VIII. Number of farmers groups formed by district**

District	Group formation (Y3Q1)	Male	Female	Total members	Cumulative Group formation	Male	Female	Total members
Achham	60	340	920	1,260	79	448	1,211	1,659
Argakhanchi	100	567	1,533	2,100	130	737	1,993	2,730
Baitadi	60	340	920	1,260	78	442	1,196	1,638
Banke	120	680	1,840	2,520	357	2,024	5,473	7,497
Bardiya	147	833	2,254	3,087	395	2,240	6,055	8,295
Dadeldhura	70	397	1,073	1,470	85	482	1,303	1,785
Dailekh	113	641	1,732	2,373	196	1,111	3,005	4,116
Dang	204	1,157	3,127	4,284	465	2,637	7,128	9,765
Doti	64	363	981	1,344	81	459	1,242	1,701
Gulmi	114	646	1,748	2,394	144	816	2,208	3,024
Jajarkot	60	340	920	1,260	105	595	1,610	2,205
Kailali	200	1,134	3,066	4,200	272	1,542	4,170	5,712
Kanchanpur	198	1,123	3,035	4,158	288	1,633	4,415	6,048
Kapilvastu	194	1,100	2,974	4,074	285	1,616	4,369	5,985
Palpa	117	663	1,794	2,457	134	760	2,054	2,814
Pyuthan	86	488	1,318	1,806	176	998	2,698	3,696
Rolpa	92	522	1,410	1,932	137	777	2,100	2,877
Rukum	90	510	1,380	1,890	134	760	2,054	2,814
Salyan	91	516	1,395	1,911	140	794	2,146	2,940
Surkhet	66	374	1,012	1,386	137	777	2,100	2,877
<b>Total</b>	<b>2,246</b>	<b>12,735</b>	<b>34,431</b>	<b>47,166</b>	<b>3,818</b>	<b>21,648</b>	<b>58,530</b>	<b>80,178</b>

Of the total 2,246 groups formed in Y3Q1, 559 or about 26% are currently registered in various institutions as shown in Table XI.

**Table IX. Number of farmer groups registered**

District	District Agriculture Development Office	Department of Cooperative Office	Small Cottage Industries
Achham	50	0	0
Arghakhanchi	86	3	0

**Table IX. Number of farmer groups registered**

District	District Agriculture Development Office	Department of Cooperative Office	Small Cottage Industries
Baitadi	16	0	0
Banke	0	0	0
Bardiya	0	0	0
Dadeldhura	15	0	0
Dailekh	26	2	0
Dang	0	0	0
Doti	3	0	0
Gulmi	25	3	0
Jajarkot	0	0	0
Kailali	0	0	0
Kanchanpur	180	0	0
Kapilbastu	5	2	0
Palpa	115	0	0
Pyuthan	0	0	0
Rolpa	0	0	0
Rukum	0	0	0
Salyan	11	4	0
Surkhet	27	0	0
<b>Total</b>	<b>559</b>	<b>14</b>	<b>0</b>

### **Activity A.2.3 Trained farmers on improved production and post-harvest on rice, maize, lentil, and vegetables**

In order to improve accessibility and availability of nutritious foods, KISAN trains farmers to grow vegetables that have market demand to increase their income. KISAN promotes improved varieties of rice, maize, and lentils to increase food security. The project is introducing new (improved) technologies and techniques such as growing vegetables in raised beds; sowing seeds in lines in nursery beds; timely and proper land preparation; use of plastic mulches; and plastic houses/tunnels to cultivate off-season vegetables.



Figure 3. Soil solarization training in Dang was one of the improved technologies farmers learned in KISAN trainings.

KISAN has also started trainings on both seed and crop production of rice, maize, and lentils.

A series of six trainings per year over two crop cycles has been planned which includes a training on access to finance in either the first or second one-day technical trainings and subsequent follow-ups in remaining technical trainings.

In the Y2Q4, KISAN hired consultant Mr. Purushottam Prasad Khatiwoda to develop the curriculum for each KISAN crop for production training as well as rice, maize, and lentil seed production including post-harvest and IPM technologies. He also translated the CSISA project's (CIMMYT) 8 Tips documents on improved rice production in Odisha, India into Nepali for the Nepali context. During this quarter, the translated manual on improved rice production was finalized and 5,000 copies were printed. The improved curricula for crop production as well as rice, maize, and lentil seed production will be finalized and printed in the coming quarter.

During Y3Q1, KISAN conducted 3,494 trainings (multiple) on a range of topics for 2,376 groups for 49,924 farmers in all 20 project districts.

Trainings provided to farmers vary based on the agro-ecosystem:

- 1,590 one-day Nursery Management and Crop Production Management trainings, access to finance etc.;
- 845 one-day Crop Production Management and Marketing trainings, access to finance, etc.; and
- 1,059 mobile Crop Plantation/Plant Protection, Post-harvest and Marketing trainings, etc.



Figure 4. Farmers learned how to grow tomato in plastic much in Surkhet to improve their yields.

The number of trainings in each project district is presented in Table XII.

**Table X. Number of training on Improved Production and Post-Harvest Practices**

District	One-day nursery management training	One-day crop production management/post-harvest and marketing	Mobile crop plantation/plant protection/post-harvest marketing and other
Achham	42	0	19
Arghakhanchi	57	27	43
Baitadi	51	18	1
Banke	279	193	202
Bardiya	1	150	88

**Table X. Number of training on Improved Production and Post-Harvest Practices**

District	One-day nursery management training	One-day crop production management/post-harvest and marketing	Mobile crop plantation/plant protection/post-harvest marketing and other
Dadeldhura	11	0	1
Dailekh	48	0	0
Dang	200	69	307
Doti	62	16	8
Gulmi	15	0	14
Jajarkot	39	28	11
Kailali	271	52	71
Kanchanpur	125	86	33
Kapilbastu	60	5	21
Palpa	62	16	41
Pyuthan	26	65	103
Rolpa	88	27	51
Rukum	60	38	12
Salyan	63	0	19
Surkhet	30	55	14
<b>Total</b>	<b>1,590</b>	<b>845</b>	<b>1,059</b>

The total number of trainings conducted includes trainings in vegetable production, as well as lentil, maize, and rice. Of the cereal crops (rice and maize) and lentil, KISAN has trained farmers on how to produce lentil, maize, and rice as seed crops, as well as food crops. This quarter, KISAN conducted 3,494 trainings focused on vegetable production, and 328 on cereal crops and lentil.

The number of farmer groups in each project district which received trainings is presented in Table XIII.

**Table XI. Y3Q1 Number of producer/farmer groups that received training**

District	Number of groups receiving training
Achham	42
Arghakhanchi	76
Baitadi	69



Figure 5. Farmers attending a nursery management training learn about line sowing in nursery beds and optimal plant spacing.

Banke	287
Bardiya	193
Dadeldhura	16
Dailekh	48
Dang	415
Doti	65
Gulmi	26
Jajarkot	42

**Table XIII. Y3Q1 Number of producer/farmer groups that received training**

District	Number of groups receiving training
Kailali	267
Kanchanpur	189
Kapilbastu	110
Palpa	80
Pyuthan	105
Rolpa	95
Rukum	99
Salyan	68
Surkhet	84
<b>Total</b>	<b>2,376</b>

Some of the trainings were conducted at the demonstration sites (see Outcome 3). KISAN staff used these sites to train farmers on a range of techniques such as the benefits of rhizobium inoculation; vegetable production; plastic house with drip irrigation for off-season vegetable promotion; lentil seed and crop production; improved vegetable cultivation packages, including practices in cauliflower, tomato, and onion production; and nursery establishment. Tables XIV and XV show the number of individuals who have received USG supported short-term agricultural sector productivity or food security training (unique count and multiple count) during this quarter and over LOP.

**Table XII. Number of individuals who have received USG supported short-term agricultural sector productivity or food security training (unique count)**

District	Number of farmers trained (Y3Q1)	Male	Female	Total farmers trained cumulative	Male	Female
Achham	461	98	363	859	165	694
Arghakhanchi	568	114	454	1,233	254	979
Baitadi	262	68	194	661	200	461
Banke	1,056	704	352	6,260	2,464	3,796
Bardiya	437	94	343	6,059	1,064	4,995
Dadeldhura	266	51	215	592	122	470
Dailekh	689	200	489	2,456	559	1,897
Dang	3,159	655	2,504	8,581	2,086	6,495

**Table XII. Number of individuals who have received USG supported short-term agricultural sector productivity or food security training (unique count)**

District	Number of farmers trained (Y3Q1)	Male	Female	Total farmers trained cumulative	Male	Female
Doti	589	125	464	996	191	805
Gulmi	633	177	456	1,278	365	913
Jajarkot	283	113	170	1,184	440	744
Kailali	2,158	513	1,645	3,673	963	2,710
Kanchanpur	1,248	208	1,040	2,951	840	2,111
Kapilbastu	1,061	607	454	2,598	1,311	1,287
Palpa	1,459	309	1,150	1,850	420	1,430
Pyuthan	289	36	253	2,068	356	1,712
Rolpa	237	51	186	1,184	344	840
Rukum	97	22	75	996	196	800
Salyan	1,142	253	889	2,095	558	1,537
Surkhet	854	290	564	2,350	574	1,776
<b>Total</b>	<b>16,948</b>	<b>4,688</b>	<b>12,260</b>	<b>49,924</b>	<b>13,472</b>	<b>36,452</b>

**Table XIII. Number of individuals who have received USG supported short-term agricultural sector productivity or food security training (multiple count)**

District	Number of farmers trained (Y3Q1)	Male	Female	Total farmers trained cumulative	Male	Female
Achham	1,446	251	1,195	1,891	318	1,573
Arghakhanchi	2,430	496	1,934	4,524	1,001	3,523
Baitadi	634	187	447	1,337	427	910
Banke	14,981	5,659	9,322	33,154	11,838	21,316
Bardiya	5,467	971	4,496	29,907	5,377	24,530
Dadeldhura	460	96	364	974	186	788
Dailekh	858	219	639	13,398	2,777	10,621
Dang	11,745	2,639	9,106	38,019	9,898	28,121
Doti	1,955	348	1,607	2,962	525	2,437
Gulmi	1,118	294	824	2,552	729	1,823
Jajarkot	1,642	713	929	7,057	2,486	4,571
Kailali	6,720	1,862	4,858	9,457	2,714	6,743
Kanchanpur	4,254	1,357	2,897	7,277	2,498	4,779

Kapilbastu	3,681	1,962	1,719	5,433	2,768	2,665
Palpa	2,747	601	2,146	4,263	1,008	3,255
Pyuthan	3,904	710	3,194	11,619	2,164	9,455
Rolpa	2,785	835	1,950	6,970	2,045	4,925
Rukum	1,213	247	966	6,092	1,190	4,902
Salyan	1,917	475	1,442	8,389	2,560	5,829
Surkhet	2,248	481	1,767	12,617	2,551	10,066
<b>Total</b>	<b>72,205</b>	<b>20,403</b>	<b>51,802</b>	<b>207,892</b>	<b>55,060</b>	<b>152,832</b>

#### **Activity A.2.4 Provided grants to develop private sector artificial insemination programs to provide better services to farmers**

During Y2, KISAN released a request for Expressions of Interest (EOI) for NGOs, cooperatives, associations, and private agrovets to apply for seed money to establish private sector artificial insemination (AI) services for farmers. KISAN received multiple EOIs and selected Basundhara Agro Tech and Services Pvt. Ltd., Banke to receive a grant to support the development of a business plan that will include close coordination with the District Livestock Services Offices and other relevant GON offices, and how they will procure basic capital needs (liquid nitrogen, semen straws), and how they will keep records and provide demonstrations.

Basundhara Agro Tech and Services Pvt. Ltd. will improve breeds of large ruminants through artificial insemination in Dang, Banke, and Bardiya districts. Over the period of two year, Basundhara Agro Tech will operate 6 AI centers in the three districts through trained inseminators to extend breed improvement services to dairy cattle entrepreneurs. The grantee will invest in the required equipment, ensure regular supply of liquid nitrogen and semen, and conduct demonstrations on forage and fodder productions. The grantee will also facilitate to establish and strengthen the relationship between dairy farmers, dairy cooperative, AI service centers and DLSOs.

The grant activity aims to conduct around 12,000 inseminations for genetic improvement of their offsprings, providing service to at least 9,000 dairy animal rearing farmers. From the inseminated dairy cattle, additional 6,000 improved calves are expected to be produced in the project locations in each year.

#### **Activity A.2.5 Promote productive goat breeds**

This will be done next quarter.

#### **Lessons Learned**

- Mobile field-based practical trainings are very effective in successfully teaching farmers how to cultivate crops with improved techniques.
- As a result of KISAN trainings, farmers are gradually switching from traditional agriculture production to new technologies in nursery management, crop production, and plant protection, and more farmers groups are now linked with savings groups.
- The project is working to address is the limited agrovets services in the districts and the lack of timely available quality inputs. Leveraging GON and other donor resources has been effective in reinforcing the messages of the trainings.
- High staff turnover has made implementation challenging.

### 3. OUTCOME 3, SUB-IR 1.3: IMPROVED AND SUSTAINABLE AGRICULTURE PRODUCTION AND POST-HARVEST TECHNOLOGIES AND PRACTICES ADOPTED AT THE FARM LEVEL

Outcome 3 focuses on training farmers on improved technologies that will increase production while improving natural resource management and post-harvest management. Under this outcome, KISAN will bring to scale research findings from CSISA, including new seed varieties, and USAID-funded Innovation Labs. They may include technologies or practices that capture water, such as multi-purpose ponds or micro-dams that incorporate irrigation and plastic greenhouses for off-season crop production. Additionally, KISAN will demonstrate and promote agriculture machinery that can improve soil fertility through conservation tillage practices. KISAN is identifying and promoting improved technologies to decrease post-harvest losses of cereals and vegetables. KISAN will share these improved technologies with farmers through training of Change Agents (Outcome 2), demonstrations, and communications campaigns. During Y3, KISAN will further promote improved technologies through the grants program. Table XVI presents the improved and sustainable agriculture production and post-harvest technologies and practices adopted at the farm level.

**Table XIV. Outcome 3: Improved and sustainable agriculture production and post-harvest technologies and practices adopted at the farm level**

Performance Indicator	Target Y3	Achievement Y3	Achievement Y3Q1	Target LOP	Achievement LOP
Number of farmers and others who have applied new/improved technologies and management practices as a result of USG assistance	39,760	13,558	13,558	107,200	39,939
Number of hectares under improved technologies or management practices as a result of USG assistance	14,300	5,681	5,681	45,000	14,104

*Note: These numbers are estimated and will be verified by sample survey in May/June 2015.*

#### **Activity A.3.1 Identified improved technologies to introduce to farmers**

KISAN has worked with CSISA, HMRP, IPM-IL, and other projects and this quarter has worked to introduce identified technologies that will increase sustainable production of high-value crops, improve yields of traditional crops, and reduce post-harvest loss.

**Table XV. Technical and Field-based Interventions to Improve Production this Quarter**

<b>Technology Category</b>	<b>KISAN Improved Technology</b>
Land improvement/preparation practices	Soil solarization Terrace improvement Type of soil for suitability for different crops
Crop genetics	Adopting improved and quality seed variety Use of draught tolerance seed variety
Nursery management	Raised/low bed nursery Polypot/polybag, tray nursery High bed nursery (tand) Mulching
Management practices	Use of plastic house/tunnel Use of MIT (drip/sprinkler/MUS/Treadle pump/plastic pond) Agronomy management (complementary mix, inter-cropping, mixed cropping, relay cropping, crop rotation) Off-season cultivation Use of nutrients and lime Line sowing, adequate spacing (both plant-to-plant and row-to-row). Direct seeding in case of rice, maize, and lentil.
Cultural practices	Adequate use of manure Raise bed farming Timely sowing Timely irrigation Timely weeding Staking, mulching Use of lure and traps Use of bio-fertilizer Balance use of fertilizer Adoption of IPM practices Judicial use of pesticides; use of Class III and IV pesticides Use of jholmol (liquid manure) Use of hormones for female flower induction (e.g. miraculan) Proper handling of sprayer
Harvest and post-harvest	Harvesting time (based on crop type) and time of harvest

### Activity A.3.2 Established demonstration plots

Farmers are unaware of the new varieties and cultivation practices. To improve awareness, KISAN has been promoting new methods and improved technologies through trainings and demonstration events to increase farmers' production. During this quarter, KISAN collaborated with CSISA, HMRP, IPM-IL, and other projects to set up 191 demonstration plots in 17 districts: 33 plastic houses with drip irrigation for off-season vegetable promotion; 77 demonstrations of rice, maize, lentil crop/seed production and vegetable production; and 59 demonstrations of bio-pesticide (jhol-mol) technology. Details are presented in Table XVIII.

**Table XVI. Demonstration Plots by District (Y3Q1)**

District	Demo of plastic house with drip irrigation for off-season vegetable promotion/Field demo	Demo rice, maize, lentil crop/seed production and in vegetable	Demo of bio-pesticide (jhol-mol) technology	Demo of storage technology of cereals and legumes (Super-bag etc.)	Demon of irrigation
Achham	2	6	2	0	0
Arghakhanchi	0	1	2	0	0
Baitadi	0	0	0	0	0
Banke	2	1	2	0	0
Bardiya	4	1	2	0	0
Dadeldhura	2	0	4	0	0
Dailekh	1	1	1	0	0
Dang	1	6	11	1	1
Doti	14	0	0	4	3
Gulmi	0	1	2	0	0
Jajarkot	0	0	0	0	0
Kailali	0	3	0	0	0
Kanchanpur	0	0	5	0	0
Kapilbastu	1	17	0	3	0
Palpa	0	0	0	0	0
Pyuthan	0	4	1	0	0
Rolpa	1	15	14	0	0
Rukum	1	1	2	0	1
Salyan	0	11	7	3	2
Surkhet	4	9	4	1	3
<b>Total</b>	<b>33</b>	<b>77</b>	<b>59</b>	<b>12</b>	<b>10</b>

### **Demonstration of plastic house with drip irrigation for off-season vegetable promotion**

KISAN staff conducted 33 plastic house demonstrations in twelve districts on improved production technology for off-season vegetables, especially tomato, to take advantage of the higher prices (due to low supply) in the off-season. The total target for Year 3 is 1,248 demonstrations. With financial support from DADO, WDO, VDC, RISMFP, and technical support from KISAN, an additional 136 demonstrations were conducted for cultivating tomato under plastic houses with and without drip irrigation in Surkhet (24), Dadeldhura (36), and Baitadi (76). The tomato varieties demonstrated were Srijana, Manisha, Himsohana, and Winsari.



Figure 6. Farmers visit a demonstration site in Dang where they learn how to use plastic mulch to improve productivity and reduce costs.

### **Demonstration of vegetable, rice, maize, and lentil crop/seed production**

This quarter, KISAN staff conducted 77 crop production demonstrations in the Mid-West and West. The purpose of these demonstrations is to increase yields using improved technology as compared to traditional practices. In line with the cropping season, the focus this quarter has been on vegetable and some maize demonstrations. The demonstrations in vegetable crop production were vital in developing farmers' skills in improved vegetable production through the use of plastic mulch. Through the comparative demonstrations in farmers' field, the farmers learned about the cost minimization in intercultural operation through the use of white and black plastic mulch. KISAN staff also demonstrated use of plastic tray and coco peat. The farmers were impressed with the cost minimization in the intercultural operations and minimized use of chemical pesticides. However, due to the prevailing cost of the agro purpose plastic, large scale farming using the plastic tunnel seems extremely costly. In addition, it is beneficial to conduct these demonstrations in a timely manner so that farmers have time to adopt these practices for

#### **Observations and Lessons Learned**

- The demonstration events have motivated farmers to adopt and create demand for the plastic house and drip irrigation technology.
- KISAN is working with other stakeholders to leverage the cost of the plastic houses and the farmers are also cost sharing.
- Plastic house is very effective in generating high income from a small unit of land.
- Tomato cultivation under plastic house is successful only in elevations of 750 to 2,200 meter.
- The first time growers are suggested to use 300-400 gauge of plastic.
- Precaution should be taken in the use of Silpolyene plastic and staking of tomato. There is also a need to identify indeterminate varieties like Wnsari, Srijana, Manisha, etc.

the upcoming crop season. Labor-saving technology proved popular as there is a shortage of agricultural labor in most rural areas due to migration to urban centers. Demonstrations were conducted in the following districts: Achham, Arghakhanchi, Banke, Baridya, Dailekh, Dang, Gulmi, Kailali, Kapilbastu, Rolpa, Pyuthan, Rukum, and Surkhet.

### **Demonstration of bio-pesticide (Jhol-mol) technology**

Bio-pesticides are an effective alternative to chemical pesticides for rural areas. IPM and Integrated Plant Nutrition System (IPNS) are also in demand. These methods utilize local resources for nutrient management and plant protection. *Jhol-mol*, a bio-pesticide, is largely being used by vegetable farmers, and is particularly popular in areas where chemical fertilizers and pesticides are not easily available as insect repellent and control for soft body insects like aphids at early stages. It also provides some nutrients for vegetables. During this quarter, KISAN has conducted a total of 59 demonstrations in bio-pesticide in nine districts (Achham, Arghakhanchi, Banke, Bardiya, Dadeldhura, Dailekh, Dang, Gulmi, Kanchanpur, Pyuthan, Rolpa, Rukum, and Surkhet). Farmers are interested in these technologies as they utilize locally available resource like plant wastes and weed parts, ripe fruit (except citrus), aromatic herbs (Simali, Khirro, Bhang leaf, Dhaturu leaf, Neem leaf, bojo leaf, Asuro leaf), rotted chili, ginger, turmeric, cow urine and cow dung, etc. The demonstrations gained popularity mainly because it helped control the red pumpkin beetle and leaf minor, which harm cucumber crops. It is recommended that farmers spray jhol-mol on plants starting in the nursery through to harvest time. It also stimulates plant growth in stress condition and increases yields by 5-6%. However, jhol-mol is comparatively less effective than chemical pesticides and takes a longer preparation time, which has prevented widespread adoption.



Figure 7. Farmers at a jhol-mol demonstration learn how to prepare the bio-pesticide on their own farms using locally available resources.

### **Demonstration of storage technology for cereals and legumes seed (Super-bag, etc.)**

This demonstration corresponds directly to harvest seasons, therefore KISAN has not conducted any demonstrations of storage technology for cereals and legumes this quarter.

#### **Observations and Lessons Learned**

- Preparation process of jhol-mol is easy as it utilizes local resources and is inexpensive
- Pests are quickly repelled crop as foliar spray as well as direct to soil spray
- No side effect to human and animal health
- Eco and environment friendly
- Need to prepare ahead which can be a hindrance for some farmers
- Farmers need to cultivate raw materials for their use

### **Activity A.3.3 Organize exposure visits**

This quarter, KISAN arranged visits to change agents' fields to disseminate innovative technologies developed by CSISA, HMRP, and IPM-IL.

#### **Exposure visits to demonstration plots**

In Rapti cluster, a 20 agrovets, MPC and cooperative members, farmers, and LSPs participated in a three-day exposure visit was organized to CSISA and IPM-IL site at Surkhet district July 17-19. The team visited the IPM-IL site in Chinchu VDC ward no 3, Sano Harre where they observed tomato cultivation under plastic house with drip irrigation and discussed different farming technologies and methods with Mr. Durga Prasad Khatri, who is a LSP. During their visit to the CSISA site in Gadhi VDC, Bayalkanda, the team observed maize and rice farming and discussed these practices with farmers. A total of 9 such demonstrations were conducted this quarter in change agent fields in Banke, Bardiya, Rolpa, and Palpa.

KISAN organized an exposure visit on September 22 to CIMMYT DSR plots to motivate farmers on DSR technology for rice production. A total of 25 farmers from Kapilvastu, including lead farmers who had adopted DSR the previous season and other interested farmers, visited CIMMYT DSR plots in Nawalparasi, Rupandehi, and Kapilvastu. The participating farmers learned about improved DSR technology such as the zero till machine and the use of weedicides. The farmers were motivated to adopt DSR technology and additional farm mechanization in the coming season. In Kapilvastu, DSR technology has reduced cultivation costs by 35% when compared to transplanted rice (TPR) technology.



*Figure 8. At many demonstration sites, farmers can compare traditional methods and innovative production technologies. This demonstration in Dang shows the difference in yield and quality between growing tomatoes traditionally in the open and under a plastic house during the rainy season.*

#### **Intra-district exposure visits**

This quarter, KISAN organized two intra-district exposure visits for KISAN farmers and change agents in Palpa and Gulmi. In Palpa, the farmers from 17 groups visited the demo plot of Pragati vegetable production group and LSP Deu Bahadur Kwar in Chidipani's field where they observed plastic house

tomato production. The team also interacted with the committee member of Bhanjyang Pokhara Agriculture Cooperative Ltd. and discussed vegetable collection practices, and savings credit activities. A total of 233 farmers/change agents participated.

In Gulmi, an exposure visit was organized for 41 farmers to see demonstration sites for plastic houses in Guadkot; line sowing, intercropping, and mulching in Naram; and vegetable nursery in Rimi. The exposure visit provided an opportunity to share skills, knowledge, and experience among the farmers and created a competitive environment for adoption of innovative technologies.

### **Challenges**

KISAN has worked with CSISA and IPM-IL, disseminating their technologies to beneficiaries. However, staff observed that some of the technologies are not meeting all of the KISAN beneficiaries' needs. IPM-IL kits (integrated pest management tools including bio-pesticides, pheromone traps) are not available in the supply chain making it difficult for KISAN staff to obtain the kits. The supply chain for bio-fertilizers and bio-pesticides needs to be developed. In recognition of this issue, KISAN has signed a MOU with Agricare and will work with them to extend availability of bio-products through local input suppliers in KISAN project locations. In addition, seedlings grown using plastic trays with coco peat is costly. Therefore, instead of coco peat, KISAN can promote decomposed compost, vermi compost, or goat manure to grow seedlings.

#### **Activity A.3.4 Develop extension messages**

KISAN is exploring other ways to disseminate extension messages on improved agriculture technologies and practices and market information. The goal is to provide producers enough information so that they can make informed decisions in selecting crop and seed varieties, when to sell produce, and which technologies are most effective for their crops. Dissemination of messages via FM/radio in Pyuthan, Rolpa, Gulmi, and Arghakhanchi commenced during this quarter and are broadcasting agriculture-related programs. Technologies included in the messaging are plastic mulch, improved seeds for cereals and vegetables, good agricultural practices for cereals and vegetables, use and benefits of IPM, and others. Programs are also including information on market prices. KISAN staff observed that farmers have improved their access to innovative technologies and started to use new technologies after listening to the radio broadcasts. Farmers have also improved their bargaining power because they have better/more timely market information.

#### **Activity A.3.5 Promoted agriculture mechanization**

During the previous quarter, KISAN released a request for applications (RFA) to dealers to apply for up to \$10,000 to procure machinery that they do not already sell (such as attachments) as a way to introduce machinery to farmers. The RFA also requested the dealers conduct demonstrations so that they show farmers the value of the equipment. On September 22, 2014 the Habi Auto Trading Pvt Ltd

was awarded a grant on to promote agriculture mechanization in Kanchanpur, Kailali, Bardiya, Banke, Dang, and Kapilvastu districts through demonstrations and trainings on a range of 4-wheel tractor attachments. The demonstration package will orient more than 1,300 farmers on the function of zero till and the proper use of seed and fertilizer as well as safe handling and operation of the machines. The grantee will work with financial institutions to increase the farmers' access to credit for agriculture machineries. Additionally, it will also promote rental services and facilitate the repair services for the farm machineries at the local level.

## **B. COMPONENT A, IR 2: INCREASED AGRICULTURE VALUE CHAIN PRODUCTIVITY LEADING TO GREATER ON- AND OFF-FARM JOBS**

KISAN will coordinate with Component C, the Livelihoods Component, to teach farmers and rural residents how to increase their revenue and profit when they invest in productive assets that improve product quality.

### **4. OUTCOME 4, SUB-IR 2.1: IMPROVED MARKET EFFICIENCY**

Outcome 4 will focus on establishing market linkages for farmers and creating demand for both inputs and farm outcomes. Under Outcome 4, KISAN is developing collection centers, strengthening wholesale markets, and improving the availability of market information to ensure farmers can continue to sell their high-value agriculture products. Table XIX shows the number of Collections Centers and MPCs established and functioning due to KISAN facilitation. KISAN has facilitated the establishment of seven CCs/MPCs this quarter.

**Table XVII. Outcome 4: Improved market efficiency**

<b>Performance Indicator</b>	<b>Target Y3</b>	<b>Achievement Y3</b>	<b>Achievement Y3Q1</b>	<b>Target LOP</b>	<b>Achievement LOP</b>
Number of collection centers/MPC established and functioning via facilitation of USG (either through funding or leveraging)	85	12	12	150	42

#### **Activity A.4.1 Formed and strengthened new MPCs and established collection centers**

KISAN is expanding agriculture production in new VDCs and new areas where MPCs and collection centers do not already exist. During the past quarter, KISAN staff formed and established seven MPCs and collection centers to serve more than 700 farmers. Table XVIII shows the districts where these new collection centers were established. Marketing Supervisors work closely with the Agriculture POs, Business Development Service Officers (BDSOs), DCs, and Agriculture Marketing Manager to establish Marketing and Planning Committees (MPCs) for each collection center.

Before forming the MPC, KISAN oriented the farmers on the importance of the MPC and the need for enhancing access to improved production technology and marketing on group basis. Prior to this orientation, farmers were unfamiliar with market-led production concepts and the importance of business plans and market information. Farmers were also unaware of the benefits of group marketing; most farmers currently sell to retailers individually. Farmers then learned about the process for forming the MPC, a process facilitated by KISAN BDSOs and Agriculture Marketing Supervisors. By involving farmers in the formation of the MPC, farmers have a sense of ownership of the MPC and are more invested in its success: the MPC will only be successful if the farmers supply an adequate volume of produce.



Figure 9. KISAN farmers sell products in newly established Haat Bazaar in Bansgadhi, Bardiya. This local market provides additional nutritious vegetables to the local community.

The new MPCs are quite active. In Rolpa, the community opened a new MPC, with KISAN support. Nawa Chetna Vegetable Collection Center in Nuwagaun VDC ward no 9, Halunga started collecting and marketing vegetables in July. This MPC is providing services to 250 farmers in Nuwagaun (KISAN working area), Budhagaun, and Gairegaun VDCs. Nawa Chetna Collection Center has held its haat bazaar day on Tuesday and Friday every week. In July, Nawa Chetana Collection Center collected/transacted 5,000 kg of vegetables, which is valued at NRs 2 lakh.

### Additional market outlets

In the Terai, there is a good road network so farmers have better access to collection centers and markets. However, in the hills and mountains, roads are sparse and often in disrepair so farmers cannot always access collection centers with ease. These farmers need additional market outlets (ways to access markets) beyond collection centers. KISAN has provided some support to develop enterprises like



Figure 10. KISAN farmers sell to “ghumti” or portable shop that is being used as a collection center for farmers. Mr. Madhave Mahara of Doti is seen here selling vegetables he bought from KISAN farmers.

cycle vendors, push carts, and ghumtis, depending on local conditions.

In Dang, KISAN has encouraged rural farmers to establish cycle vendors to improve their market access in the Lamahi and Ghorahi areas. Two beneficiaries decided to participate in the cycle vendor program: they either produce or buy vegetables and carry the vegetables on their bicycle to sell to the consumer or vegetable retailers for a profit. Farmers can also access markets collectively through ghutmis which is a light outlet that can be moved to different locations.

### **Activity A.4.2 Strengthened existing MPCs**

As MPCs are semi-formal organizations, they need support. Some of the MPCs started in previous projects are still weak. KISAN is strengthening existing MPCs by assessing them and providing direct training and support to some of the weaker organizations.

### **Assessments**

During the quarter, the marketing team assessed 34 collection centers and major markets in 15 project districts (see Table XX below) to review market performance of the past season and develop plans

**Table XVIII. MPCs assessed during Y3Q1 by District**

<b>District</b>	<b>Y3Q1 progress</b>
Dang	2
Rolpa	2
Salyan	2
Kapilbastu	6
Arghakhachi	3
Palpa	2
Gulmi	4
Kanchanpur	3
Kailali	1
Dadeldhura	1
Baitadi	2
Doti	1
Achham	1
Bardiya	2
Jajarkot	2
<b>Total</b>	<b>34</b>

growth and expansion in the coming season. Staff did this by attending the MPC monthly meetings where the members, which included KISAN farmers, local traders, MPC/CC members, and other local resource people, discussed how to make the MPCs functional and sustainable. Staff and MPC leaders assessed the financial performances of the past season and worked out on the plans to operate the collection center market for next season. With the information, KISAN staff worked with MPC staff to develop production plans to improve marketing of vegetables and explore potential sources of income for the MPC to increase financial sustainability (e.g. reserve fund, levi-fee system). These assessments provided an opportunity to encourage MPC members (such as LSPs) to develop a commercial nursery at the MPC for farmers to buy seedlings when they sell their products. During the assessments, participants share and discuss the importance of new technologies such as grafting technology, using plastic trays and coco peat for nurseries, plastic tunnels for off-season vegetables, mulching, soil solarization, and the use of IPM products to scale up commercial nursery growers at the MPC/CC level.

For example, with technical support from KISAN, one MPC in Bardiya has developed a Market-Led Production Plan. The 39 MPC members (31 female) participated in developing the market-led production plan as it is essential for running a successful vegetable production business.

## Observations

While conducting these assessments, workshops, and other activities, KISAN staff made several observations. Collection centers and MPCs are most successful when they are in the middle of several VDCs or in an area where farmers in multiple VDCs have easy access. For example, in Jajarkot, the Dalli and Kalimati Bazaar has gradually increased its transactions as it is the central or primary market for seven neighboring VDCs.

It is important to analyze market supply and demand in order to help farmers produce what is in demand at the right time in the appropriate markets. For instance, when staff conducted a follow-up meeting in Jajarkot, they found that demand for onion is high because businessmen from Dolpa typically come to purchase onions in Dalli. Dalli has a better climate and soil condition for growing onions as compared to Dolpa and therefore grow better onions. KISAN can map these areas out for better analysis.

**Table XIX. MPCs strengthened and support during Y3Q1**

District	Formation MPC/CC	Strength of MPC/CC	Material Support	Follow Up
Achham	0	0	0	0
Arghakhanchi	0	0	0	0
Baitadi	0	0	0	0
Banke	0	0	0	0
Bardiya	1	0	0	0
Dadeldhura	0	2	1	4
Dailekh	0	0	0	0
Dang	0	0	1	2
Doti	0	1	0	1
Gulmi	1	0	0	2
Jajarkot	0	0	0	0
Kailali	0	2	0	3
Kanchanpur	1	0	0	3
Kapilbastu	0	0	0	0
Palpa	0	0	0	0
Pyuthan	0	0	0	0
Rolpa	0	0	0	0
Rukum	1	1	0	0
Salyan	0	0	0	0
Surkhet	0	0	0	0
<b>Total</b>	<b>4</b>	<b>6</b>	<b>2</b>	<b>15</b>

In addition to the assessments, KISAN provided targeted support in the form of training and support to five MPCs.

During the Q1, KISAN has strengthened MPCs by providing training, materials, and guidance.

### Training

KISAN developed curricula and provided training to existing MPCs. KISAN staff compiled previously-used materials and revised the training curricula for MPCs, traders, and staff. These training materials were circulated to BDSOs, Agriculture Marketing Supervisors, Marketing Coordinators, DCs, and Regional Marketing Officers during the past quarter. Training topics include roles of market actors, business strategies, and market-led production. In Kapilbastu, the district-based BDSOs and Marketing Supervisor (MS) provided one training to old and newly formed representatives of the MPCs in their district to bolster the weaknesses identified in the initial rapid assessment and consultant Tom Green's assessment.

The two-day MPC strengthening training was held from September 17-18 at district HQs. Thirty traders, farmers, and MPC members participated the training. The goal of the training was to educate participants on the roles and constraints of market actors, business strategies that would support different actors, KISAN's marketing and market-led production approaches, DADO's services regarding the MPC, and on the importance of business plans. Participants learned about these concepts in addition

to the Market Information System as well as how farmers, traders, and MPCs can benefit from it.

### Material support

This quarter, KISAN supported two MPCs (Dang and Dadelhura) by providing basic tools and supplies that they need. Depending on the need of the MPC, KISAN provided materials including office tables, calculators, plastic chairs, plastic crates, weighing balances with different dhaks (weights), digital weighing scales, tarpaulins, sign boards, etc.

### Guidance

In addition to providing material support, KISAN provided guidance to the MPCs on

market-led production approaches, how market information supports farmers in receiving fair prices, concept of business plans and their importance, MPC benefits for farmers, how to establish sustainable linkages with traders, marketing strategies, approaches to reducing post-harvest loss, financial sustainability and how to generate income/funding, restructuring MPCs where necessary, and how to effectively coordinate with concerned stakeholders (government entities, I/NGOs, private sector). As a



Figure 11. Navajyoti Collection Center, Ghodabas Dailekh District sign board shows the revival of the collection center. KISAN partnered with the DADO to bring farmers, traders, and

result of this support and guidance, the MPCs have experienced an increase in transactions as more farmers are selling their produce in the centers. One factor in this trend is that weighing scales reduce the chance that farmers will be cheated. Improved linkages with government, NGOs, and other projects have enabled MPCs to fulfill their infrastructure needs as they bring in additional resources.

#### **Activity A.4.3 Conducted exposure visits**

Under this activity, KISAN helped create learning opportunities along the agriculture value chain between MPC members, local service providers, vegetable traders, lead farmers, and staff. This quarter, KISAN conducted two exposure visits in Arghakhanchi to Butwal and Gulmi to Butwal to learn about the latest market demand and supply of produce from different production pockets, marketing practices, post-harvest handling, developing market linkages with reliable wholesalers, and getting reliable price information.

In Arghakhanchi, a team of 38 participants including lead farmers, LSPs, agrovets, vegetable traders, MPC members, and DADO and ASC staff visited a vegetable demonstration plot in Khachikot. Similarly, the 15 member team in Gulmi visited vegetable demonstrations in Gaudakot, Birbas Rimi, and Hardineta Naram. In addition to strengthening linkages among agrovets, farmers, traders, and ASCs, the exposure visits also provided the chance for participants to discuss the services they each could provide as well as their constraints and opportunities.

#### **Activity A.4.4 Strengthened wholesale markets**

During the quarter, no formal trainings were conducted with wholesale markets. However, KISAN staff continued to link traders to wholesale markets.

#### **Activity A.4.5 Strengthened market linkages**

KISAN is strengthening linkages between buyers and suppliers to improve understanding between the farmers and traders. Farmers and input suppliers need to understand the varieties and quality inputs required to produce high-value products for the market and the market needs to understand the possible production volume of market needs/demand and the market needs to understand production potential.

#### **Challenges**

- Lack of effective coordination and operational planning among MPC and its members
- Lack of motivation and awareness among farmers for commercial vegetables farming.
- Lack of effective production plan for a better improved market and marketing system

This quarter, KISAN conducted four Agriculture Output and Input Marketing workshops in Pyuthan, Rolpa, Kailali, and Kanchanpur to strengthen market linkages. These workshops had a total of 111 participants representing various stakeholders including agrovets, traders, MPC members, local service providers, agriculture office staff, farmers, and cooperatives.

### **Lessons Learned**

- MPCs need a critical mass of vegetables to trade; as new markets pop up or if farmers reduce production, the MPC will not succeed.
- There are possibilities for market expansion/growth opportunities by engaging more farmers in production and or collecting more produce from other local traders and smaller markets nearby.
- MPCs need market led production plans and need to communicate needs to farmers and agrovets.

The main objective of these workshops was to identify existing problems and issues for marketing of major high-value crops in the KISAN project area. The workshops help assess demand and supply of major vegetables and identify the opportunities to increase local production and exports to nearby markets. They also help establish the role of stakeholders in managing district agriculture products.

DADOs have played a positive role and instructed to their staff based at the Agriculture Service Centers to build linkages with KISAN field staff to coordinate and collaborate; the

workshops helped to facilitate these relationships at the field level.

#### ***Activity A.4.6 Mapped production of each MPC and Collection Center***

To help KISAN staff, MPCs, and traders plan, KISAN used data from the project to map the collection centers and KISAN producers to ensure KISAN farmers have access to a market. A preliminary map was produced that shows KISAN producer groups and existing markets (See Annex VI). During the next quarter, KISAN will do more detailed maps for the MPCs and explore ways of using GIS to help estimate production levels of specific crops.

#### ***Activity A.4.7 Explored and establish ICT market information system needs***

No activities were conducted this past quarter.

#### ***Activity A.4.8 Engaged high-value vegetable markets involved in farmer trainings***

KISAN is exploring ways for high-value vegetable buyers to become involved in training. During the last quarter we prepared a TOR and solicited the services of Beed Management Pvt. Ltd. to look at the economic opportunities for buyers to invest in the vegetable market sector and show buyers the potential return of investment from investing in training. The contract will be signed in their work will begin next quarter.

#### ***Activity A.4.9 Promoted Warehouse Receipt for cereals and lentils***

During the quarter, an RFA was developed. We expect to post the RFA in the following quarter.

#### ***Activity A.4.10 Engaged processors in training farmers***

KISAN staff have met with and been in touch with K.L. Durgar Group, a company that wants a steady supply of lentils and rice, and developed a memorandum of understanding (MOU) which will be signed next quarter. The two organizations agreed to work together to promote improved quality lentil and rice production and marketing with farmers in the West, Mid-West, and Far-West of Nepal. The two

organizations will collaborate to implement a range of activities with farmers to increase rice and lentil yields and grain quality, including training and technical assistance to farmers in the target locations.

## **5. OUTCOME 5, SUB-IR 2.2: INCREASED CAPACITY OF GON AND LOCAL ORGANIZATIONS**

Interventions under this outcome will build the organizational and technical capacity of local organizations to, for example, conduct rigorous and large-scale monitoring and evaluation, and perform sound financial management, internal auditing, and reporting. With respect to the GON, capacity building will be undertaken in agriculture research and extension, including supporting GON agriculture policy analysis through IFPRI, universities/Nepal Agricultural Research Council (NARC) research capacities, and new training modules.

### ***Activity A.5.1 Increased capacity building of local organizations***

As per verbal communication, USAID has suggested that Winrock hold off on building the capacity of local organizations that will eventually take over the KISAN Project activities

### ***Activity A.5.2 Strengthened partnership with NARC and universities for innovation dissemination***

Until the Outcome 5 approach is finalized, KISAN continues to coordinate with NARC in whatever way possible. NARC is a member of the KISAN NPAC and is consulted with in all major KISAN activities and events at national and district levels.

### ***Activity A.5.3 Strengthened entrepreneurial and organizational skills of small enterprises and community-based organizations***

KISAN worked extensively with local organizations in the project districts. KISAN has worked to linkages, and strengthen CC/MPCs, cooperatives, seed networks, agrovets, and equipment suppliers as described in other outcomes.

In Y3Q1, KISAN strengthened 6 MPCs and facilitated the formation of 6 new MPCs (see Outcome 4 for details on activities regarding MPCs and CCs). In the process of reviving these non-functional MPCs, KISAN has facilitated linkages between MPC members, traders, retailers, agrovets, dealers, and KISAN LSPs. KISAN has built capacities of MPCs in recordkeeping of both produce and sales; next year planning; developing yearly crop production charts; and stakeholder coordination for produce marketing with DADO, other MPCs, and regional-level MPCs. These MPCs will coordinate regularly with KISAN and other development projects for sustainable operation of the market.

KISAN has also conducted several meetings with other cooperatives on possible approaches to increasing their outreach to KISAN farmers for both membership and access to finance. Project staff strengthened relations with MIT dealers and are consulting with farmers in order to ensure that vendors stock the appropriate (in-demand, meets farmers' needs) irrigation technologies.

### III. MANAGEMENT AND ADMINISTRATION

#### A. CONTINUED EXPANSION

##### I. VDC SELECTION

In previous quarters, KISAN staff have coordinated closely with DADOs to finalize KISAN VDCs in Year 2. Of the 336 project VDCs in the Mid-West, Far-West, and West districts, activities have been conducted in around 291 VDCs this past quarter.

##### VDC Inception/interaction workshop

KISAN staff conducted VDC-level orientation and inception meetings in each new VDC before activities begin in beneficiary selection/farmer group formation. These workshops were organized under the chairmanship of respective VDC secretaries. KISAN invited various stakeholders including the VDC secretary, local agrovets, representatives from CC/MPCs, members of VDC agriculture coordination committee, lead farmers, agro-traders, and representatives from NGO/INGOs to participate in the discussions. During these events, the district team presented the KISAN goal and objectives and identified possible areas for partnership with the VDCs.

**Table XX. District wise VDC inception workshop**

District	# of VDCs
Dailekh	8
Jajarkot	2
Surkhet	3
Dang	9
Pyuthan	3
Rolpa	1
Salyan	3
Rukum	3
Kailali	8
Baitadi	3
Kanchanpur	3
Dadeldhura	2
Kapilvastu	17
Gulmi	7
Arghakhanchi	3
Palpa	6
<b>Total</b>	<b>81</b>

This reporting quarter, KISAN conducted 81 inception workshops in the Mid-West, West, and Far-West districts. As of this reporting quarter, inception workshops have been conducted in 32 VDCs in the Mid-west (19 in Rapti cluster and 13 in Bheri cluster), 33 in the West, and 16 VDCs in the Far-West; this will be continued in the coming quarter. See Table XXII for details.

##### 2. MOBILIZING STAFF

During this quarter, 67 new staff were recruited for twenty districts. Key new positions have been filled at the regional level including: Irrigation/MUS Expert, Senior Agricultural Marketing Officer, Regional Grants Officer, and Regional Microfinance Coordinator. At the cluster level Cluster Managers, Micro Finance Extension Officers and for district level Irrigation Technicians, Agriculture Technician, Agriculture marketing supervisor, VDC coordinator required in additional numbers. KISAN has experienced a

high rate of staff resignations during this quarter and KISAN staff has been continually hiring to fill vacant positions. Screenings are ongoing for the DC and PO positions in few districts, vacant with this position. This reporting quarter, the current status of KISAN staffing is presented in Table XXIII.

**Table XXI. KISAN Staff List**

Staff by category	Organization	Kathmandu Staff	Nepalgunj Staff	District Staff	Total
Professional (Full Time)	WI	10	5	44	59
Professional (Part Time)	WI	-	-	-	-
Staff below Professional Level	WI	2	1	50	53
Support staff	WI	3	4	3	10
Pending Approval	WI	-	-	-	-
<b>Total Winrock Staff</b>		<b>15</b>	<b>10</b>	<b>97</b>	<b>122</b>
Professional (Full Time)	CEAPRED	5	8	14	27
Professional (Part Time)	CEAPRED	-	-	-	-
Staff below Professional Level	CEAPRED	0	0	85	85
Support staff	CEAPRED	-	-	-	-
Pending Approval	CEAPRED	-	-	2	2
<b>Total CEAPRED Staff</b>		<b>5</b>	<b>8</b>	<b>99</b>	<b>112</b>
Professional (Full Time)	DEPROSC	-	2	9	11
Professional (Part time)	DEPROSC	1	-	-	1
Staff below Professional Level	DEPROSC	-	-	12	12
Support staff	DEPROSC	-	-	-	-
<b>Total DEPROSC Staff</b>		<b>1</b>	<b>2</b>	<b>21</b>	<b>24</b>
<b>Grand Total</b>		<b>21</b>	<b>20</b>	<b>217</b>	<b>258</b>

### **3. PROCUREMENT**

This past quarter, KISAN has procured two 4-wheel vehicles and 22 motorcycles. Registration of the vehicles is pending, and they will all be dispatched to project districts in 2014.

### **4. KISAN PARTNER COORDINATION**

KISAN continues to coordinate closely with implementing partners CEAPRED and DEPROSC. Senior representatives from both organizations continue to participate in all project events and major interactions, including the NPAC, related visits, and monthly regional meetings in Nepalgunj.

### **5. WIKISAN MONITORING SYSTEM**

#### ***M&E training and activities***

WIKISAN version 3.2 was deployed in September 30, 2014. More than 202 users (including district based staff) have access to enter data and to run reports. In this version, the database can perform summary queries that can conduct reports with multiple variables. We added a way to collect and leverage. In addition to individuals, groups, organizations, and trainings, the leverage results will be included in the WIKISAN system report. Data entry is ongoing: to date 3,818 groups, 11,411 trainings, 59,2959 individuals, 310 organizations, and 131 leverage have been entered in WIKISAN.

The Regional M&E team visited six Far-West Districts (Kailali, Kanchanpur, Dadeldhura, Baitadi, Doti, and Achham) and three Mid-West Districts (Bardiya, Surkhet, and Dailekh) to orient staff on the WIKISAN M&E system. The objective of the training was to orient district staff to the WIKISAN system and to provide hands-on training to enter real-time data from project districts. Guidance was provided to the district staffs on the data entry process and how to reduce data entry errors. The team also oriented staff on the new reporting features of WIKSAN V3.2 and has been advised to start entering leverage data in the new WIKISAN system. The team instructed the DCs/POs to conduct timely trainings and maintain the data entry deadlines. The team has also inspected the documentation storage and filing system of hard copies (physical data) in district offices.

Altogether, more than 112 field staff received hands-on training to enter geo-enabled data into the WIKISAN system. The team also held an interaction meeting with the Karetada Multiple Cooperative in Dailekh and learned about the status of the cooperative and collection center that KISAN has supported. The team also visited Nabajyoti Collection Center in Dailekh which was dysfunctional for a number of years but revived through KISAN's assistance. The team also observed the Malarani Collection Center operations in Surkhet.

#### ***M&E interns***

In the KISAN M&E system, each activity and training needs to be entered into the WIKISAN database. M&E data collection forms for individuals, groups, activities, and organizations are printed out and filled in. This data then needs to be entered into WIKISAN. Two of the primary goals of this system are to expedite the data entry process and avoid excessive use of staff time in managing the system. KISAN

has, so far, recruited 42 M&E interns in its 20 field districts. Out of the recruited interns, 15 have successfully completed their internship period. In this quarter, KISAN extended contracts for 10 interns for an additional three months and 13 new interns have been recruited. Four interns did not complete the program due to further studies, job opportunities, and personal issues. Selected interns are high school graduates and local residents; priorities were given to disadvantaged groups. Among recruited interns, 34 are women, six are from Dalit communities, and 19 are from Janajati communities. District and regional staff have trained these M&E interns to enter the real-time data properly. The internship program seeks to build the professional capacity of disadvantaged youth graduates. Most of these M&E interns are women and from marginalized groups from project districts. See Annex II for a complete list of M&E interns.

### ***Geo-enabled Database System***

WIKISAN data was compiled and Year 2 progress maps were created for each KISAN district. The maps were sent to DCs and cluster managers for verification. Any issues with the data reported by DCs and managers were resolved. Additionally, GIS datasets have been updated with most recent list of project VDCs obtained from respective districts. Ward boundary GIS datasets were purchased from Department of Survey to match the level of detail in data generated from WIKISAN. Purchased boundary maps were processed and converted to USAID-approved projection systems.

WIKISAN has been updated to V3.2 that lets users to register GPS coordinates for collection centers, agrovets, and various other organizations with which KISAN works. Geographic coordinates will also be collected in WIKISAN V3.2 on any leveraging taking place in the field.

## **B. CONTRACT DELIVERABLES**

During the past quarter, KISAN project submitted the Annual Progress Report, and the Annual Workplan twice. We incorporated activities from Modification 4 into the workplan and then made adjustments based on changes in programming due to flooding in KISAN districts.

## **C. WINDOWS OF OPPORTUNITY AND GRANTS UNDER CONTRACT**

This quarter, KISAN responded to a Windows of Opportunity and facilitated several additional Grants under Contract (GUC) activities have focused on awarding grants, monitoring implementation, and releasing Request for Applications (RFAs) in support of Modification 4

### **I. WINDOWS OF OPPORTUNITY**

#### ***\$ 100,000 Grant for Science and Technology Competition for Resilience in Nepal***

In September 2014, the KISAN team with USAID/Nepal initiated the \$100,000 Grant for Science and Technology Competition for Resilience in Nepal. The team developed the grant approach, categories, and processes and released the solicitation for applications in late September. The evaluation of proposals will be carried out between October and December 2014.

Through this grant, KISAN along with USAID and awardee organizations will introduce/expand innovative solutions to building sustainable food security. This competition aims to encourage private sector engagement and innovative thinking to bring new knowledge, tools, and partnerships to the challenge of helping communities maximize food security, while also making them more resilient to the effects of climate change and other environmental challenges. The awards will be disbursed in Year 3 (January 2015), and will be implemented for a 12 to 18 month period spanning Y3 and Y4. There are two grant categories: a) Grant to pilot a new idea, and b) Grant to scale-up a proven concept.

Applications will need to impact the KISAN targets through one or more of the following approaches:

1. Leverage the transformative power of technology and partnerships to introduce and/or scale-up climate smart, scalable, and sustainable solutions.
2. Increase agriculture productivity and bring disadvantaged farmers more income, while also conserving environmental resources.
3. Contribute to the sector development of livestock and/or one or more of the four crop categories: rice, maize, lentils, and high-value vegetables.

## **2. GRANTS UNDER CONTRACT**

This quarter, KISAN GUC activities have focused on awarding grants, monitoring implementation, and releasing RFA.

On August 25, 2014, KISAN awarded its first grant to Basundhara Agro Tech and Services Pvt. Ltd. on breed improvement of large ruminants through artificial insemination in Dang, Banke, and Bardiya districts. The Habi Auto Trading Pvt Ltd was also awarded a grant on September 22, 2014 for the promotion of agriculture mechanization in Kanchanpur, Kailali, Bardiya Banke, Dang, and Kapilvastu districts through demonstrations and trainings on a range of 4-wheel tractor attachments.

This quarter, KISAN issued two RFAs. An RFA was issued on August 18 for the promotion of agriculture mechanization in Kanchanpur, Kailali, Bardiya Banke, Dang, Kapilvastu, Dhadeldhura, Surkhet, and Palpa through demonstrations and trainings on smaller farm equipment, and facilitating the availability and repair services for these machineries in district sales centers. The grant has an estimated budget of \$5,000 per district and will be for a period of one year. The KISAN GAC is evaluating and requesting revisions to finalize the applications. A pre-application orientation was conducted for the potential grantees on September 11 at KISAN Office, Sanepa.

On September 10, 2014, USAID issues a press release for the \$100,000 Science and Technology Competition for Resilience in Nepal to encourage private sector engagement and innovative thinking to bring new knowledge, tools, and partnerships to the challenge of helping communities maximize food security, while also making them more resilient to the effects of climate change and other environmental challenges. The grant will be implemented by KISAN. KISAN has been receiving concept papers for the grant.

**Table XXII. Status of KISAN GUC**

<b>EOI/ RFA</b>	<b>Date issued</b>	<b>Status</b>
Breed improvement of large ruminants through artificial insemination	April 30, 2014	Received 21 concept papers Shortlisted 3 applications Awarded a grant to Basundhara Agro Tech and Services Pvt. Ltd on August 25, 2014 Basundhara Agro Tech is conducting field studies to develop a viable Business Plan.
Promotion of agriculture mechanization through demonstrations and trainings on a range of mini tiller, 2-wheel and 4-wheel tractor attachments	May 11, 2014	Received 10 applications Shortlisted 4 applications Awarded a grant to The Habi Auto Trading Pvt. Ltd on September 22, 2014
Promotion of agriculture mechanization through demonstrations and trainings on smaller farm equipment, and facilitating the availability and repair services for these machineries in district sales centers	August 17, 2014	Provided pre-application orientation to potential organizations on September 11, 2014 Received 11 applications Initial screening completed
\$100,000 Science and Technology Competition for Resilience in Nepal	September 10, 2014	Application deadline is October 15, 2014 Receiving concept papers
Agrovets embedded service		Developing Terms of Reference
Promotion of Warehouse receipts		Developing Terms of Reference

This quarter, KISAN also hired a Regional Grants Officer who will be stationed in the Regional office, Nepalgunj. The Regional Grants Officer will facilitate coordination with the grantee and support activity implementation in the project area.

#### **D. FLOOD RELIEF SUPPORT IN FLOOD-AFFECTED AREAS IN MID-WEST**

Heavy rainfall in mid-August 2014 has caused tremendous loss of life and property in the Mid- and Far-West of Nepal, especially in Banke, Bardia, Surkhet, Dang, and Kailali districts. Around 3,000 KISAN project beneficiaries have partially or fully lost their house, as well as their vegetable nursery/crop and rice and maize crop. This has affected KISAN project targets and objectives. With the objectives to improve the food security and livelihood as well as to meet the project objectives, KISAN has initiated flood relief support to affected beneficiary households with minimal input support and technical trainings. This partial support may include funding and other support to re-establish vegetable nurseries. KISAN will extend program support to farmers through its local service providers, local agrovets, and others, using vouchers to indicate the type and quantity of support provided.

KISAN will initially provide support to up to 3,000 project beneficiaries who lost their vegetable nursery/crops to re-establish nurseries. KISAN is working with local staff and is in the process of hiring local consultants to support flood affected farmers. Initial screening of crop damage and related losses has been completed.

## **IV. CHALLENGES AND ANTICIPATED FUTURE PROBLEMS, DELAYS, CONDITIONS, AND CONSTRAINTS THAT MAY ADVERSLEY AFFECT THE IMPACT OF THE PROGRAM**

### **I. STORMS AND FLOODING AFFECTED BENEFICIARIES**

During second week of August 2014, heavy rainfall in different parts of the Mid- and Far-West region caused flooding and landslides, which affected KISAN beneficiaries' agriculture fields, and standing crops. Detailed reports from the district are given below.

#### **Dailekh**

- Rain and hailstorm affected and destroyed the standing crops (vegetables and cereals); WFP reported that about 30% of crops were destroyed. The heavy rain, flooding, and landslides also affected some KISAN VDCs in Dailekh including seri, baraha, dadaprajul, goganpani pilladi, kharigaira.
- Due to a delay in the rainy season, farmers were busy in their field making it difficult to form groups. Group formation was also negatively impacted by the landslides and flooding.
- More than 300 KISAN households were affected by the floods and landslides.
- A total of 1705 households were affected in agriculture ; the average loss in Goganpani VDC was Rs. 60-70 lakh of vegetable=.

#### **Banke**

- A total of 8.35 ha in Sitapur and Hirmanya VDCs were affected by the heavy flooding in Banke district. Newly established nurseries were also affected: 122 nursery beds in 14 KISAN VDCs were damaged. Farmers in these areas also had health issues as a result of the floods and landslides including diarrhea, fever, and typhoid.

#### **Bardiya**

- There was significant flood damage in three VDCs in Bardiya according to information collected by the District Agriculture Development Alliance: Padnaha, Mohmadpur, and Sidpur. Padnaha and Mohmadpur are KISAN VDCs.
- Due to the flooding, KISAN could not complete the remaining Y2 activities that have carried over into Y3.

- Due to the unavailability of plastic trays in the Nepalgunj and Lucknow markets, combined with the flooding, staff could not establish the vegetable nursery using plastic trays to conduct the 20 vegetable demonstrations that had been planned for this quarter.

### **Jajarkot**

- Program implementation was significantly affected by landslides in Ramidada VDC.

## **2. REPLACEMENT OF COP**

During the past quarter, Bill Collis, COP resigned from the project. Winrock searched for a replacement and USAID approved Mr. Tim Ekin who will start next quarter. We expect a smooth transition.

## **3. HIGH TURNOVER OF STAFF**

All organizations implementing KISAN are facing loss of staff who have resigned and need to be replaced. This creates delays because we have fewer staff in the field to do the work and staff have to dedicate time to recruit, interview, and seek approval for new staff. Many staff are leaving for new, better opportunities created by other agriculture projects. KISAN is in the process of conducting the second market survey. Since the project started to assess the project’s remuneration rates as compared to others.

## **V. SECURITY ISSUES**

There were no significant political disturbances or strikes in the project districts and in Kathmandu this quarter. There was one-day strike declared in Surkhet and two days strike in Dailekh during this quarter, but it didn’t affect the project districts. The storms and flooding mentioned above affected three staff and approximately 3,000 beneficiaries.

See table below for details.

**Table XXIII. KISAN Security Reporting**

<b>Date</b>	<b>Region</b>	<b>District</b>	<b>Description</b>	<b>Risk Level</b>
	Central region	Kathmandu		
July-September, 2014	Bheri Cluster, Mid-Western Region	Surkhet	Pacchim Nepal band announced by Maoist on 9/23/2014, however the band was not affected in normal daily activities, transport movement and official work.	Low

**Table XXIII. KISAN Security Reporting**

Date	Region	District	Description	Risk Level
		Dailekh	Minor disturbance by two days strike and Road blockade (Dailekh-Surkhet) for a few days, no effect reported to the program.	Low
		Banke, Bardiya and Jajarkot	Security situation was reported normal during this period.	
July-September, 2014	Rapti Cluster, Mid-Western Region, Far-West and West Region	All 15 Districts	Everything was normal in all districts in Rapti Cluster during reporting period	

## VI. ENVIRONMENTAL IMPACT

Winrock has prepared the Environmental Mitigation and Monitoring Plan (EMMP) and will submit the first draft to USAID/Nepal with the first work plan. As part of KISAN’s Initial Environmental Examination (IEE), the project will develop an evaluation of programs through a Pesticide Evaluation Report and Safe Use Action Plan (PERSUAP) that outlines currently used agrochemicals, or those that may be used in the future. KISAN staff continue to reinforce the importance of safe environment practices and using safe pesticides in all project events and trainings.

## ANNEXES

### ANNEX I: LEVERAGE SUMMARY

Cluster	Districts	Partners	Major Activities	Leverage Amount (Implemented in NRs)
Far-West	Baitadi	DADO Small Farmer Organization	Seed Production Training Materials	527,000
	Doti	CEAD Nepal DADO	Off-Season Vegetable Production Demonstration Plots/Seed Distribution	2,274,000

		RDC	MUS/Irrigation Channel	
	Kailali	DADO	Agriculture Equipment Irrigation	1,880,000
Bheri	Banke	VDC DADO NARC Laghu Udhyam Samuha	Seed Support Agriculture Equipment	455,200
		Jajarkot	DADO AFEC	Pastic Pond/Irrigation Vegetable Production
Rapti	Dang	CFUG	Irrigation	1,100,000
	Rolpa	IAPAC ICCA	Vegetable Production	85,000
<b>Total</b>				<b>6,497,582</b>

## ANNEX II: LIST OF M&E INTERNS

S.N.	Name of Intern	Districts	Join Date	Remarks
1	Ms. Sharmila Tharu	Banke	25-Mar-14	Completed
2	Ms. Durga Thapa	Banke	25-Mar-14	Completed
3	Mr. Sanjeev Verma	Banke	28-Mar-14	Did not complete
4	Ms. Sadhana Jha	Bardiya	23-Mar-14	Completed
5	Ms. Anita Tharu	Bardiya	23-Mar-14	Completed
6	Ms. Sima Chaudhary	Bardiya	1-Apr-14	Completed
7	Ms. Radhika K.C.	Surkhet	12-Mar-14	Did not complete

8	Ms. Amrita B.K.	Dailekh	13-Mar-14	Completed
9	Mr. Santosh B.K.	Jajarkot	19-Mar-14	Completed
10	Ms. Rita Chaudhary	Dang	25-Feb-14	Completed
11	Ms. Birshikha Chaudhary	Dang	19-Mar-14	Completed
12	Ms. Ramita Jhakri Magar	Dang	27-Mar-14	Completed
13	Ms. Gita Budhathoki	Salyan	4-Mar-14	Completed
14	Ms. Pampha B.K.	Rukum	2-Mar-14	Completed
15	Ms. Gita Acharya	Rolpa	12-Mar-14	Completed
16	Ms. Kamana Shrestha	Pyuthan	4-Apr-14	Completed
17	Ms. Beskala B.K.	Pyuthan	10-Apr-14	Completed
18	Ms. Kamala Upadhyay	Kailali	20-May-14	Active
19	Ms. Parbati Sunar	Kailali	1-Sep-14	Active
20	Ms. Kabita Rokaya	Kanchanpur	10-Jun-14	Did not complete
21	Ms. Dhana Bhatta	Kanchanpur	1-Aug-14	Active
22	Ms. Gita Daugaura	Kanchanpur	26-Aug-14	Active
23	Ms. Bhajan Kumari Budha	Achham	10-Jun-14	Active
24	Mr. Ashim Singh	Doti	22-Jun-14	Active
25	Mr. Bikash Upreti	Dadeldhura	19-Jun-14	Active
26	Mr. Nav Raj Pandey	Baitadi	24-Jun-14	Active
27	Mr. Hum Bahadur B.K.	Arghakhanchi	22-Jun-14	Active
28	Ms. Trisana Kamu	Palpa	24-Jun-14	Active
29	Ms. Bishnu Sanami	Gulmi	25-Jun-14	Active

30	Mr. Azizullah Khan	Kapilbastu	8-Jun-14	Active
31	Mr. Raj Kumar Kurmi	Kapilbastu	1-Jul-14	Active
32	Ms. Urmila K.C.	Rukum	29-Jun-14	Active
33	Ms. Kalpana Kawar	Rolpa	26-Jun-14	Active
34	Ms. Niruta Chaulaune	Salyan	15-Aug-14	Active
35	Mr. Ramesh Ku. Shahi	Jajarkot	18-Aug-14	Active
36	Ms.Subheksha Shrestha	Pyuthan	11-Sep-14	Active
37	Ms. Durga Roka Magar	Dang	11-Jun-14	Active
38	Ms. Pooja Regmi	Dang	11-Aug-14	Did not complete
39	Ms. Nabina Khadka	Dang	2-Sep-14	Active
40	Ms. Sarita Thapa	Banke	18-Aug-14	Active
41	Ms. Rekha Thapa	Dailekh	2-Sep-14	Active
42	Ms. Kalpana Regmi	Surkhet	1-Jul-14	Active

## ANNEX III: SUCCESS STORIES

### SUCCESS STORY

#### Smallholders improve income and health through vegetable production

In the Mid-West hills of Nepal, about half of the population lives below the poverty line and stunting rates exceed 60 percent. Families have small pieces of land which typically do not produce enough food to sustain household consumption year-round. Jaikala Sahi and her family were no exception. She lives in Punakot, Dailekh and used to grow wheat, rice, maize, and potatoes on their 4 ropani of land. However, they could only grow enough food to feed the family for six months; for the remaining six months, Jaikala found work as a laborer or had to borrow money from neighbors to feed her family and try to keep her children in school. Then

Jaikala heard about the KISAN Project and joined a production group where she received training in good agricultural practices for producing high-value vegetables. She now earns NRs 35,000 annually just from selling her produce, and is able to support her family without doing any laborer jobs. Prior to beginning vegetable farming, she was earning around NRs 12,000 annually through laborer jobs, and from goat-breeding.

When Laligurans Vegetable Production Group formed in Jaikala's village she noticed that members of the group were earning higher incomes at the market by selling vegetables instead of the standard cereal crops. She decided to join the production group and learned about the KISAN trainings. Eager to improve her production, Jaikala participated in trainings on selecting better variety of seeds, fertilizer use and application, post-harvest management practices, integrated pest management, and marketing techniques. She also learned about soil solarization, nursery management, and growing off-season vegetables in plastic tunnels, and participated in further technical training while visiting a demonstration plot.



Photo courtesy of Winrock International

Figure 1. Jaikala now makes NRs 35,000 annually from selling high quality produce. She grows enough vegetables for her family to consume a portion,

Following the training, Jaikala received improved varieties of tomato, chili, and cabbage to plant on her farm; she is also growing cucumber and bitter melon. Using the knowledge she learned in the KISAN trainings to improve productivity, Jaikala now earns NRs 50,000 annual, NRs 35,000 of which is from selling seasonal vegetables. "We have fresh vegetables to eat from our land. Eating fresh vegetables has improved health condition and is a regular source of income," Jaikala said. "We are now counted as respectable people in our village." Jaikala has shared knowledge she learned with her neighbors so that the community can prosper; she is also now the chairperson for the Laligurans Vegetable Production Group. She is eager to apply the off-season vegetable production techniques in coming seasons and estimates that she will double the income in doing so.

## SUCCESS STORY

### Lead Farmer improves income through off-season vegetable production

Agriculture in Nepal is not traditionally viewed as being very profitable career. Many turn to other vocations in order to earn enough money to support their

Photo courtesy of Winrock International



Figure 2. Bal Bahadur also grows off-season vegetables like chili, further adding to his income.

Photo courtesy of Winrock International



Figure 1. Bal Bahadur applies the nursery technologies and agricultural practices to production on his farm to significantly increase his income.

families. Bal Bahadur Thapa became a mason, building houses and cowsheds for communities around Dasera, Jajarkot, where he and his family have a farm. However, they do not have sufficient knowledge of optimal agricultural practices and could only support their family for four months off of income earned from crops and livestock. Then the KISAN Project formed the Hariyali Agriculture Group in his community, and Bal Bahadur jumped at the chance to learn how to improve his farm's productivity. Given his experience in labor and reputation in the community, the group selected Bal Bahadur to be a Lead Farmer. He is now fully engaged in off-season vegetable production and has substantially increased his income.

As a Lead Farmer, Bal Bahadur participated in KISAN trainings on a variety of agricultural techniques including off-season vegetable production, nursery management, crop harvest and plant protection, maize seed production, bio-pesticides, drip irrigation technology, plastic house technology, and others. Following the training, Bal Bahadur and other lead farmers applied the techniques and technologies they learned in their own fields as a kind of demonstration farm. Other farmers in the community visit these lead farmers to observe the better practices and technologies at work, and see the improved yields and quality of produce.

Using what he learned in the KISAN trainings, Bal Bahadur established a nursery on his farm. He grows a variety of vegetables in this nursery, and distributes and sells his produce to other members of his agriculture group and community. He earned NRs 1,600 from off-season cucumber and is currently harvesting chilies. He hopes to earn about NRs 4,500 from his chilies, and a total of NRs 20,000 from off-season vegetable cultivation. "I want to drop out the masonry occupation and I want to adopt the vegetable farming occupation," Bal Bahadur said after seeing the potential income in off-season vegetable production. Prior to commercial vegetable production, he was earning around NRs 10000 as a semi-skilled laborer per season.

## SUCCESS STORY

### New vegetable production technologies increase yields for smallholders

Vegetable production has significant potential to improve the production and income of farmers in Nepal where landholdings are continually decreasing in size. Vegetables can be grown on small plots of land, and these home gardens are typically in the purview of women. However, farmers in rural areas often do not have access to information on best agricultural practices and technologies for vegetable cultivation and are thus unable to capitalize on this opportunity. By providing trainings and technical assistance at the farm gate, KISAN is working with smallholders to advance their vegetable production skills so they can improve their livelihoods.

Uttara Devi Khadka lives in Doti, in the hills of Far-West Nepal, with her family and earns income through traditional farming. Her family was having some difficulty meeting basic needs on this income, so she was excited to learn some new techniques when she enrolled in the KISAN Project. Uttara participated in



Photo courtesy of Winrock International  
*Figure 1. Uttara applied pest and disease management techniques and other vegetable production technologies on her farm and has increased her yields and*

the nursery management and plant protection training for vegetable production where she learned new vegetable cultivation practices and technologies. She and her family began vegetable cultivation in open fields, as well as in a poly house. She received additional technical assistance from a KISAN Agriculture Technician who visited Uttara's farm and taught her about pest and disease control including demonstrating how to use a pheromone trap to reduce insects.

Uttara cultivated cabbage, chili, and cucumber earning NRs 55,000. The following crop cycle, she planted ginger, turmeric, chili, and tomato, with additional field technical support from a KISAN Agriculture Technician, and plans on earning about NRs 12,000. Prior to beginning commercial cultivation, Uttara's family was dependent on subsistence agriculture earning on average NRs 5000 monthly. As a result of this substantial increase in income, Uttara's economic situation has improved dramatically. She is able to send her children to school and has enough money left over to support her family's basic needs. Once farmers like Uttara learn about a new technology or practice, see it demonstrated, and understand the potential benefits, they can be successful in applying it to their own farms and establish a sustainable livelihood.

## SUCCESS STORY

### Farmer substantially increases income after investing in improved vegetable production technologies



*Figure 1. Using new technologies like plastic tunnels for vegetable cultivation, Bhim was able to significantly improve her income*

The majority of smallholder farmers in rural Nepal are risk averse since they have few assets, the primary asset being small pieces of land. There is a slim margin between meeting basic needs and having to sell off what few assets they have. As a result, smallholders are reluctant to invest in new technologies, unless they have a demonstrated and immediate positive effect on income. Bhim Sari Gharti is one farmer that decided to take a chance and invest in new technologies and practices after attending KISAN trainings where she saw firsthand what the potential improvements she could make on her own farm. Bhim now earns quadruple what she invested in new inputs.

Prior to attending KISAN trainings, Bhim struggled to support her family through traditional agriculture on a small plot of land in Salyan in Mid-West Nepal and was unable to send her children to school. KISAN formed a farmer group in Bhim's community, Laligurans Farmers Group, which Bhim joined. She attended trainings on a variety of vegetable production technologies and practices like using bio-pesticides, coco peat, plastic mulch, soil solarization, integrated pest management, post-harvest management, and others. By observing these technologies in action and seeing the potential benefits, Bhim was motivated to adopt them on her own farm.

Following the trainings, KISAN provided support to help Bhim develop a business plan for her farm enterprise. Bhim installed a drip irrigation system on part of her land to grow vegetables. She also purchased improved seeds, agri-equipment, and other necessary inputs. She uses Jholmol, which is a bio-pesticide, and is also using plastic mulch, coco peat, and nursery and crop production management practices. Bhim invested NRs 56,000 in agricultural inputs needed to increase her yields and quality of produce. For two crop cycles of vegetables (cabbage, cauliflower, tomato, capsicum, and others) and cereal crops (wheat and maize, on part of her land not under vegetable cultivation), Bhim is earning NRs 250,000.

Prior to expanding to larger scale commercial vegetable production, Bhim Sari was earning around NRs 50,000 annually from vegetable and maize cultivation in a smaller plot of land.

Bhim is planning on further increasing her income by planting off-season vegetables on part of her land. She sells her crops at the nearest agriculture collection center where she knows she can get fair prices. With her increased income, Bhim is able to fully support her family and her children are back in school.



*Figure 2. Bhim invested in several new technologies for her farm. Her farm is now a demonstration farm so other farmers in her community can learn about these technologies and their benefits.*

## SUCCESS STORY

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## SUCCESS STORY

### Farmer triples income with improved vegetable production

The agriculture extension service system in Nepal lacks the capacity to reach all smallholders, particularly those in rural or marginalized areas. Given that farmers are more likely to adopt new technologies and practices when they have seen them in action, and understand how they work and the benefits to their livelihoods, lack of extension has hampered improvements in rural agriculture productivity. Sukala BK supported her family through traditional agriculture in Rolpa, Nepal with minimal success as she did not have much extension support, and therefore had limited knowledge of better technologies and practices. After meeting KISAN local service providers, Sukala decided to try something new... and tripled her income as a result.

KISAN-trained local service providers (LSPs) are individual entrepreneurs who KISAN train in various agricultural practices and technologies. The LSPs then provide inputs to farmers. When



*Figure 2. Bhim invested in several new technologies for her farm. Her farm is now a demonstration farm so other farmers in her community can learn about these technologies and their benefits.*

farmers purchase inputs, the LSP also provides guidance on how to use the different inputs such as fertilizer and seed. Seeing that she would receive continual support, Sukala decided to join a KISAN farmers group to learn about new vegetable cultivation techniques like plastic houses and drip irrigation. A KISAN Agriculture Technician came to her farm to guide her on construction and best practices. Rupkala also participated in exposure visits to see the technology at work on other farms.

Once Sukala understand that the plastic house could improve her yields and income, she decided to build one on her farm with drip irrigation. She purchased additional inputs (fertilizer, sprayer, etc.) from the LSP and began cultivating vegetables including cow peas, bitter gourd, chili, tomato, cauliflower, broccoli, and radish. She sells vegetables year-round now and has tripled her income. Prior to KISAN, she earned around NRs 32,000 annually. Now, by selling vegetables using the improved technologies and practices, Sukala earns over NRs 100,000 in net profit alone annually.

Sukala plans to continue cultivating vegetables, with support from the LSP in her area. In addition to earning more income and supporting her family's financial needs, she is also proud that she can harvest fresh vegetables from her garden every day to improve her family's nutrition.

## **ANNEX IV: TRIP AND CONSULTANT REPORTS**

**Traveler:** Gurbinder Gill

**Dates of Trip:** August 11 – September 4, 2014

**Places Visited:** Kathmandu, Dhangadi, Nepal

**Purpose of the trip:** The purpose of the trip was to work with the Seed Summit Core team to finalize the thematic areas and then develop the concept note along with the Dr. Hari Upadyaya and to work with KISAN team to meet with various stakeholders involved in the private seed enterprise (financial institutions/seed companies/enablers – like other donor agencies/government officials) and further strengthen the team engagement with the private seed sector.

### **Outcome of the visit**

During the time in Nepal, Mr. Gill worked with the KISAN Team and the Seed Summit core team to accomplish the following:

- Worked to finalize the thematic areas to be addressed during the seed summit.
- Along with Dr Hari Upadhyaya finalized the concept note for the seed summit.
- Planned out the modalities for executing the planned seed summit – decided on timelines and the structure of the teams who will work on the thematic areas.

- Estimated the seed market size (formal and informal) and the mapping out of the various stakeholders in the seed system of Nepal.
- Based on the interaction with all the stakeholders along with KISAN team planned out the proposed way ahead to work with the Pvt. Seed Enterprise across categories (small/medium/large) in the project area to:
  - Build capacity to increase the business;
  - Grow beyond the current level of business state; and
  - Identify key areas of constraints & support (thru grants) for enabling business's to grow.
- Developed plans to strengthen the capacity building within the Nepal Agricultural Universities so that they can carry out the required technical trainings even after the end of the project.
- Planned proposed capacity building of the enablers mainly in the financial sectors Banks – to work collaboratively with the bank's leadership toward Bankers Agribusiness Skill Enhancement.

**Consultant:** Mr. Purushottam Prasad Khatiwoda

**Date of consultancy:** June 11 to October 15 (18 working days)

**Place:** Kathmandu

**Purpose of the consultancy:** The purpose of the assignment is to develop or amend/improve the training materials for farmers' training; and to translate CSISA project (CIMMYT) developed 8 Tips documents on improved rice production in Orissa, India in to Nepali in Nepalese context.

#### **Outcome of the consultancy**

- Reviewed the existing draft KISAN training curriculum for each KISAN crop and amend the curriculum for each KISAN crop for production as well as seed production of rice, maize and lentil including post-harvest and IPM technologies.
- Reviewed the CSISA project (CIMMYT) developed 8 Tips documents on improved rice production in Orissa, India and translated in to Nepali in Nepali context.

## ANNEX V: EVENTS CALENDAR

District	Event	Purpose	Date/Venue	Participants
Kathmandu	Technical Committee Meeting for the preparation of seed summit	To convene the public and private sectors to identify ways for the cereal, pulse and vegetable seed sectors in Nepal to grow, meeting the demands for improved seed.	August 15, 2014 at KISAN Office, Sanepa	USAID Food Security Team Leader and AID Project Development Specialists; KISAN COP and Staff; MOAD Joint Secretaries; SQCC officers; Other Agencies/Projects personnel  Around 25 participants
Kathmandu	National Project Advisory Committee Meeting	To strengthen coordination with GON and other stakeholders on project implementation.	September 16, 2014 at KISAN Pffice, Sanepa	USAID team; KISAN COP and staff; MOAD Joint Secretaries; Director General and Deputy Director General; KISAN Partners; Other Stakeholders

District	Event	Purpose	Date/Venue	Participants
				Around 25 participants
Kailali, Dadeldhura, Baitadi and Kanchanpur	NPAC Members' Field Visit	To interact with farmers, MPC members, DADO and other stakeholders.	September 2-6, 2014 in Far-West	USAID Seed Director and AID Project Development Specialists; NPAC members; KISAN COP and staff. Around 12 participants
Baitadi, Kailali and Kanchanpur	USAID Officials Field Visit	Coordination between KISAN and Suaahara project, interaction with farmers, MPC members, DADO and other stakeholders.	September 19-24, 2014 in Far-West	USAID officials- Dainelle Knueppel and Mr. Hari Koirala; KISAN Staffs
Jajarkot	Interaction meeting with MPC/Vegetable Collection Center Committee	To interact on agriculture input and output market as well as SWOT analysis of agro marketing.	During this quarter at Dallit, Khagenkot VDC	Active farmers, Members of Nalgad Agriculture Product Collection Center, Local vegetable traders, KISAN Staff Around 40 participants
Bardiya	District level DADC Meeting	To extent the VDCs for KISAN project implementation in the district.	During this quarter in all VDCs of Bardiya district	DADC members and representatives of all political parties of this district
Pyuthan	Joint monitoring visit with district based GON officials.	To implement program with close co-ordination with government line agency for the sustainability and synergetic impact of the project.	During this quarter at Maranthan VDC	DADC members, District Development committee, District Forest Office members and FNCC members

District	Event	Purpose	Date/Venue	Participants
Pyuthan, Rolpa, Salyan	Interaction meeting with district MFIs	To agree for agriculture loan disburse to KISAN group's beneficiaries where the coverage of MFI.	During this quarter at different VDCs of three districts	MFIs and KISAN Team Around 59 participants
Arghakhanchi	Interaction meeting with district MFIs	To find out overlapping working area, different products of MFIS and possibilities of extending the financial services.	September 22, 2014 in Arghakhanchi	Cooperatives, MFDB, FINGOs, Venders, Commercial Bank, MFIs and KISAN Team
Kapilvastu	Interaction meeting with district MFIs	To find out overlapping working area, different products of MFIS and possibilities of extending the financial services.	September 15, 2014 in Kapilvastu	Cooperatives, MFDB, FINGOs, Venders, Commercial Bank, MFIs and KISAN Team

## ANNEX VI: MAPS OF KISAN PRODUCERS, AGROVETS, AND MARKETS

